



INVESTING IN THE BIRTH-TO-THREE WORKFORCE

A New Vision to Strengthen
the Foundation for All Learning

Bank Street College of Education
January 27, 2020

THE CHANCE TO GROW: WORKING TO HELP EVERY BABY TO DEVELOP FULLY

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FOREWORD

Bank Street's history is deeply rooted in the emergence of the birth-to-three field writ large. From its inception as the Bureau of Educational Experiments, the first members were absorbed with observing children in the nursery school and understanding "how the two-year-old meets his [her] world."¹ When the program became the Harriet Johnson Nursery School in 1934, these educators continued to ponder the ways in which each child had a distinct and unique personality, but also began asking more global questions like, "How does the two-year-old solve problems of size, time, space, and number? What are the likes, dislikes, and fears of children this age?"²

Today, over a century later, Bank Street College is proud to have multiple programs that support infants, toddlers, their families, and communities. These programs continue to pursue and extend the questions about child development that originally arose from deep observation at the core of Bank Street's developmental-interaction approach.

Even during the years when behavioral thinking reigned in psychology and education—a time when most child development institutes followed the physical sciences, taking exact measurements of babies—Lucy Sprague Mitchell, the College's founder, was fond of telling this story to demonstrate what set Bank Street apart from most child development institutes at the time.

*They wiggled. They seemed to be made of rubber—shorter one day than the day before.... They put the babies into casts so they couldn't wiggle. They got the measurements. And they weren't interested in the wiggle. We were. Nor were they bothered that casts might be an emotional strain to the babies. Again, we were.... Wiggling was an interesting behavior in young children. Emotions were a very important part of children.*³

At Bank Street, all work with children and adults functions across the developmental lifespan to achieve, as Mitchell notes, "becoming oneself, only more so."⁴ When working with aspiring teachers, this means fostering self-reflection, which is not necessarily an inborn trait, and an acknowledgement that we share accountability for the attitudes and intentions of our society and social structures.⁵ Faculty use a parallel process in which aspiring teachers learn a way of being with others through the ways in which they are treated by their mentors. Whether we are teaching children, teachers, or families, one of the primary goals of our developmental-interaction approach is to unleash curiosity about the world, encourage our students to ask questions, and build the ability and confidence to think independently and not simply use an approach or technique someone has taught you without understanding why.

In the early 1970s, Bank Street's faculty created a child care center to serve both the College community and the local neighborhood. Almost from the beginning, the Bank Street Family Center was a mixed-age and inclusive place that truly emulated a family environment and embraced all children, including those with developmental differences, as well as all families of diverse backgrounds and configurations. During the same period, the Bank Street Graduate School of Education built a program to prepare teachers for early care and education professions and later integrated an early intervention component in the 1990s. In the **Infant and Family Development and**

Developmental-Interaction Approach

Development emphasizes shifts and change over time (psychologically, physiologically, etc.) and interaction refers to the learner's engagement with her environment: materials, ideas, peers, adults, family, the community, and the larger world. Implementing this approach well requires meeting learners of all ages "where they are." Facilitators of the learning process must possess deep knowledge of the natural variability of human development and be adept at observing learners very closely.

Early Intervention Program, faculty work with aspiring teachers to think deeply about young children, families, co-workers, and communities and to grapple with the context, seeing themselves as well within the context of each particular setting. Through an intensive, yearlong advisement process, Bank Street teacher candidates meld theory and practice as they build their own theoretical approach with the developmental-interaction framework as a base.

More recently, Bank Street has begun working with birth-to-three practitioners in family group care and child care centers in low-income communities in New York City.⁶ Using a community-based approach, Bank Street has grounded this work in its deep experience with very young children and the developmental-interaction approach that has served the College so well for so long.

You will see Bank Street's approach in many ways in this paper. To ground the policy proposals in the experiences of the people who will be impacted by them, you will be introduced to a number of infant / toddler educators whose stories provide an example of the work and approach we are describing. These stories reflect a composite of experiences shared by providers, coaches, and faculty in Bank Street's infant / toddler programs. With this approach, we hope to bring alive our ideas: for example, well-worn phrases like "reflective practice" or "applied knowledge." We hope these stories make the joys and struggles of daily practice come alive while elucidating some of the ways in which our proposals for change can strengthen infant / toddler care and education in this country.

You will meet Yvette, a young candidate in a newly created infant / toddler residency program, where she assists in a mixed-age classroom in a child care center. You will also be introduced to Janice, who, with her coach, begins to reflect on her own possible contributions to a perceived impasse with a mother of a baby who attends her family child care program. We begin with Alexis' story, below. Alexis is a family child care provider with a few years of experience who has multiple life stressors. She is becoming aware that she wants to strengthen her practice in order to create more meaningful learning experiences for the very young children in her care.

Alexis' Story

Alexis was up most of the night again, which she most certainly could not afford to be. The clock said 4:30 AM and she knew that in two hours, Leticia's aunt would drop her off in Alexis' home-based infant and toddler family child care program. As a recently divorced mother, she worked more than full time. Her two children, Suzanne, a precocious 14-month-old, and Amari, a four-year-old boy whose eyes give off a quizzical look as he rocks back and forth to self-soothe, were her joys, but also a constant challenge. Alexis started her program just after Amari was born. But soon came his diagnosis of being on the autism spectrum. Negotiating the early intervention system was no picnic! Then, a few months after Suzanne was born, the divorce. Honestly? As much as she loved being with the children, some days she considered moving back down south to be close to her aunt and leaving child care to get a regular 9-to-5 job.

At the same time and through word of mouth, families in the community began to seek her out for the care of their babies and toddlers. They seemed to appreciate that Alexis listened to them and invited them to share their own child care beliefs and practices. Within two years, she had enough children to hire an assistant who appeared okay, but had little experience, so, as her mother would have said, "time will tell." With the children she did what felt right—but often she was at a loss to understand what was going on with a particular child. And sometimes the room became so chaotic she didn't know why or what to do about it. It wasn't just her financial strains either. Deep down, she often worried that all her stresses and lack of experience in some areas would interfere with what



she felt was good care. To top it all off, there were new regulations for family child care. People were visiting a lot now and taking notes, but each visitor's information about what was required seemed contradictory. When she read the new regulations, they seemed to be written in another language, which made her feel incompetent. At times, the stresses of running her program seemed greater than those in her personal life.

One morning after little sleep and much anxiety, Alexis received a phone call about a yearlong residency program for practitioners like her. Typically she might have been more guarded about an unknown agency, but the woman who all her neighbors called "the mayor" said these folks were "okay." Their goal was to help her develop a deeper understanding of culturally meaningful child development and strengthen practice based on her own goals. Alexis was pleased that she had to complete only an interview at her program, not a long, written application. She was quickly accepted and, two weeks later, found herself at a two-day orientation.

The orientation was overwhelming, but soon she knew it was going to change her life in a big way. First of all, she was with other neighborhood birth-to-three providers—some of whom she had never met. She was relieved to discover that the first "homework" assignment would be thinking about her practice and creating goals to discuss with her coach. At the orientation, the facilitators made a list of the practitioners' concerns and then they broke up into groups. One group acted out being under one year; the second group, toddlers; and the third group, two-year-olds. Then they discussed each age period and charted some key "typical" behaviors and what they might mean for their daily work. The facilitators always asked about the practitioners' experience, wanting to make sure that what was on the charts made sense and was culturally on target for the children with whom they worked. One exercise that made a deep impression on Alexis was this:

Rebecca and Laura

Rebecca enters her daughter's child care setting with her **nine-month-old daughter** Laura in her arms.

The busy caregiver tells Rebecca to **put the baby in a crib. Neither Rebecca nor Laura recognize this new caregiver.** Rebecca looks for a toy to put in the crib with her baby. **All of the toys are broken or meant for older children.** She decides not to put anything in with the baby.

A small screen just outside the crib plays a children's **video** and Laura is momentarily distracted, but then turns her gaze back to her mother. A two-year-old wanders over and **grabs** for Laura through the bars of the crib. Laura begins to wail.

Rebecca wants to wait until a familiar caregiver appears, but she can't be late for work and leaves, on the **verge of tears herself.**

The practitioners highlighted the parts of the story that were red flags and then debriefed as a group, making suggestions about what could make a difference. Alexis was stuck by how this simple story made her feel such empathy for the mother, not just the baby. There was a lively discussion about the use of TV or video during transition times like morning drop-off and, with no resolution, the facilitators put that issue in a "parking lot" to continue at another time. The practitioners rewrote the vignette together with the facilitator, discussing what should be in such a story, and highlighted the significant changes.



Luis and Alma

Luis enters his daughter's child care setting with his nine-month-old daughter Alma in his arms.

A familiar caregiver greets them by name as she takes Alma into a soft-body baby carrier that is already strapped around her, waiting for Alma's arrival.

Alma whimpers with the transfer and then the caregiver invites dad and Alma to sit with her and three other children on the floor, looking directly into Alma's eyes and using a sing-song voice. Luis says he has to go or he will be late for work. A two-year-old hands Alma a bottle containing colorful beads and says, "Daddy come back." The caregiver again looks into Alma's eyes and then to her father and back, and repeats the child's statement, "Yes, your daddy will come back to pick you up later." Alma smiles.

The caregiver then asks Luis if tomorrow he might come a few minutes earlier to have time to read a short picture book so the baby can get used to the routine at separation time. Luis smiles and says, "I will really try."

The facilitators mentioned child development concepts that backed up what the providers had said with scientific findings and the group gave the characters new names. Alexis thought for days about how Rebecca's story represented just a blip in the caregiver's day, but would have stuck with Rebecca, as a mother, for days or weeks.

Two months later during a mentoring session, Alexis said to her coach, Ruby: "This is the first time I have studied anything where we get to the *why* of each idea. Most facilitators tell you that something is true and to just 'do it.' I can't believe I never realized that babies experience things so deeply even though it is through their bodies. Now I get *why* parents should say goodbye to babies before leaving: because they may not have a picture of a parent in their head, but they can miss their smell and voice." As they talked about their work together, Alexis also shared with Ruby: "I appreciate that you offer a bunch of ideas when I pose a problem or help me think it out. When I said I wanted a book corner but didn't have money for a bookshelf, you asked me what I thought was important in a book corner for infants and toddlers. By my focus on making it inviting and cozy, the solution of making a little cloth canopy over the mattress with books in a nearby box feels like it was my idea. And it was!"

Fast forward to the end of the year: so much had happened. Together they summarized that the coaching relationship was most successful when Ruby offered a few ideas to solve a problem Alexis posed, so that they could think it through together. They also noted that checking in on self-care had been an instrumental facet of Alexis' new life. They also agreed that some of the things Ruby offered Alexis throughout the year, Alexis already knew and had just lost track of—like letting the children know when it's time for a diaper change and talking or singing to them during the process. Alexis said her favorite single sentence was by Jeree Pawl—words they discussed in the class—"How you are is as important as what you do." Alexis had written it down and taped it over the kitchen sink so she could see it often.

Alexis knew she had learned so many deep concepts, such as not just asking young children to "pay attention and listen," but helping them develop self-regulation abilities that would be with them throughout their lives. And although the parents in her program had always appreciated Alexis, she thought that she learned over the year to appreciate the parents more with greater conscious empathy. Most of all, she loved child development and thought that when the children were older, she might finish her degree with that major. Observing and thinking through children's behaviors was exciting, like doing a big puzzle. In her final self-assessment letter to Ruby, Alexis wrote, "I've become a student of my own practice."

INTRODUCTION

Imagine what would happen if every child, regardless of race, income, or opportunity, experienced consistent, high-quality, developmentally meaningful learning experiences from birth. This report presents a set of policy recommendations that can offer the nation's youngest children a much-improved chance to thrive and realize their full potential by focusing on deepening the expertise of the infant / toddler educators like Alexis who care for them. These proposals emerged from a research initiative, commissioned by the Carnegie Corporation of New York, designed to identify opportunities to significantly strengthen the nation's policies affecting children from birth to age three and their families. We began by casting a wide net, engaging nearly 100 policy leaders, researchers, funders, and practitioners and documented the landscape of challenges, opportunities, and bright spots that exist throughout the field in *Maximizing Every Child's Potential in the First*

1,000 Days of Life: A Landscape Analysis. As families increasingly rely on care outside of the home, our research following the landscape analysis quickly centered around ensuring that infants and toddlers experience the kinds of developmentally meaningful interactions we know make a difference in the first 1,000 days of life across child care options.



To achieve this goal, we propose the creation of a residency program for new and existing infant / toddler educators to serve as a focal point from which we can achieve comprehensive reform across four interconnected issues that need to be addressed in tandem to ensure broad and lasting impact: 1) deepening expertise across the system, 2) increasing compensation for infant / toddler educators,⁷ 3) strengthening systems that support infant / toddler care, and 4) generating public will to make the investments and systemic changes that are needed.

As a country, we need new policies and programs to attract, train, support, and retain highly qualified early childhood educators so that families are supported and children have access to the types of experiences and interactions that most effectively stimulate development. Infant / toddler educators must be held to the same standards as other educators and receive the same levels of support and training. As we develop programs to meet this goal, we must marry investments in quality professional learning with changes to compensation systems that lead to higher wages as educators develop expertise. A living wage needs to be established for the field as a starting point. **New professional learning strategies should include practice under the guidance of experienced educators in the form of residencies, as well as access to competency-based blended learning experiences (in-person and online) and the opportunity to meet and collaborate with fellow educators.** Such programs should be developed in tandem with reform efforts at the local, state, and national level to ensure coherence across systems that govern quality, sustainability, and impact. By identifying a first set of early-adopter communities, we can develop demonstration programs and gather proof points to drive the larger public investments that will be required to make a national impact. With customized technical assistance, states and other localities can effectively build the capacity to implement and fund this vision. While bold in scope, leaders in the field urged us to “say what others cannot” and to avoid recommendations that only offer incremental change. If scaled, we believe a comprehensive approach to workforce development that provides quality professional learning experiences can serve as a catalyst to fundamentally transform infant / toddler and family support systems.

ISSUE 1: DEEPENING EXPERTISE

How do we promote practices that most effectively foster child development?

Unlike other professions, the infant / toddler workforce is not supported by a system of accessible, high-quality models of professional learning. This is true for educators / teachers and the leaders who support them. Furthermore, because of the diversity of infant / toddler and family support settings, finding ways to also promote practices that facilitate developmentally meaningful interactions among parents, other caregivers, and adults in related professions (e.g., home visitors, social workers) is critical to ensuring positive outcomes for all young children.

ISSUE 2: COMPENSATION

How do we adequately compensate and create supports for early childhood educators/caregivers?

The low compensation, meager benefits, and poor working conditions for early childhood educators working with infants and toddlers—which often qualifies workers for welfare and hovers at the poverty level—creates enormous stress for both individuals, families, and the system as a whole.

ISSUE 3: STRENGTHENING SYSTEMS

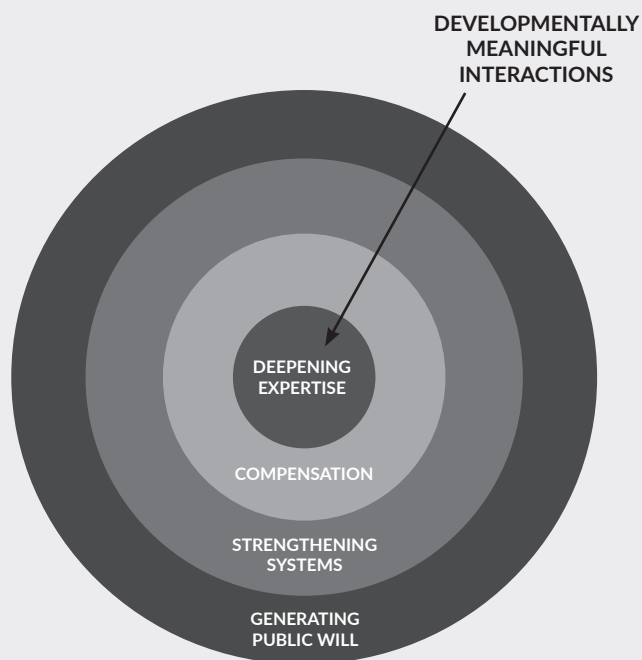
How do we build or reform systems to sustainably address these issues?

Stakeholders explained that the lack of a single or coherent system organizing support for infants, toddlers, families, and caregivers can significantly impede reform efforts in any area from having a broad or lasting effect and leads to significant differences in how states think about infant / toddler educators.

ISSUE 4: GENERATING PUBLIC WILL

How do we generate the public will required to make this happen?

Regardless of the focus, stakeholders stressed the need to tackle the fact that, in our nation, we do not value the care and education of infants and toddlers.



Quality Care

Neuroscience tells us the brain develops most rapidly during certain periods of life, perhaps most notably in the first 1,000 days.⁸ Our basis for understanding and interacting with the world begins at birth. The words we hear, the facial expressions we see, and every interaction with caregivers that we experience builds a foundation for future social, emotional, physical, and cognitive development. Our brains grow explosively during the first three years of life, developing more than one million neural connections a second. This is a time in which a sensitively attuned parent, family member, educator, or caregiver makes the largest positive impact, building a base for future success in school, relationships, and life. Adverse experiences during these foundational developmental scaffolds can result in emotional and social issues, which can in turn affect positive cognitive and language development.⁹

What Is Quality Care?

The relationships and interactions that children have with adults who care for them on a regular basis form the bedrock for all development and learning. Developmentally meaningful interactions take place with peers and with attuned adults who watch for accurate readings of a young child's often subtle cues through observation and follow their lead while providing an environment that has simple but rich materials for exploration and discovery. One of the most important prerequisites is being fully present. The following descriptors aim to more fully describe what this looks like in practice and are rooted in the theoretical framework core to Bank Street's philosophy, the developmental-interaction approach (DIA). A quality program is never the result of one teacher, but a matrix of ongoing and changing relationships between all teachers, their families, and the community. While cultural variation of community and culture determine the variety of paths to a common goal, there are some universals that we have culled.¹⁰

- Uphold the unique value and dignity of each child and family and recognize each child and family's unique strengths, including language spoken and cultural practices.^{11 12 13}
- Embrace the primary role of families in children's development and learning. Partner with them and understand how to build strong communicative relationships that nurture healthy development through interactions that provide young children with a secure attachment, trust, and the confidence necessary for them to explore the world.^{14 15}
- Maintain consistently high expectations for family involvement. Be open to multiple and varied forms of engagement and provide intentional and responsive support.¹⁶
- Comment on a child's exploration, signifying that what s/he does is important, and model language that is connected to the child's interests.
- Offer choice and facilitate opportunities to explore a rich range of materials. Consider the developmental, cultural, and linguistic appropriateness of the learning environment and teaching practices for each child.¹⁷
- Be aware of each child's threshold for stimulation.
- Engage the child in consistent routines while remaining flexible when confronted with the constant change that comes with caring for infants and toddlers.¹⁸
- Use routines like feeding, dressing, or changing as times to connect with each child, their home, and their community.¹⁹
- Be consistently present, available, and engaged interactional partners.
- Collaborate with other educators and community partners and advocate for services, such as early intervention and infant mental health specialists.



To ensure that families with young children have the support they need, it is crucial that, as a society, we continue to invest in paid parental leave, home visiting, health care, and economic supports. However, given that two out of three children under the age of five now live in homes where both parents work, it has become critical that we make additional investments in quality, affordable child care to keep up with demand and need.²⁰ Families pay more for child care than for mortgages in 35 states and only 10 percent of child care programs in this country are considered high quality.^{21 22} In its seminal paper, *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*, the National Academy of Sciences states, “Adults who are under-informed, under-prepared,

or subject to chronic stress themselves may contribute to children’s experiences of adversity and stress and undermine their development and learning.”²³ For too many children in this country, child care has become the type of adverse childhood experience that not only doesn’t promote, but may actually be interfering with brain development.

It is with this in mind that we emphasize the critical importance of zeroing in on the most effective strategies by which to sustainably impact the quality of child care programs across the country. We return to the side-by-side illustration of two child care experiences that were so meaningful to Alexis in our opening story to help shed light on the inequities young children and their families face on a daily basis. These two vignettes are not meant to simplify the differences between better and lesser quality care, but rather to reinforce how a few moments can make a difference in both infants’ and parents’ lives. The embedded comments help show why such crucial moments matter and serve to ground a definition of quality care (page 10).

Rebecca and Laura

Rebecca enters her daughter's child care setting with her nine-month-old daughter Laura in her arms.

The busy caregiver tells Rebecca to put the baby in a crib. Neither Rebecca nor Laura recognize this new caregiver. Rebecca looks for a toy to put in the crib with her baby. All of the toys are broken or meant for older children. She decides not to put anything in with the baby.

A small screen just outside the crib plays a children's video and Laura is momentarily distracted, but then turns her gaze back to her mother. A two-year-old wanders over and grabs for Laura through the bars of the crib. Laura begins to wail.

Rebecca wants to wait until a familiar caregiver appears, but she can't be late for work and leaves, on the verge of tears herself.

Continuity and familiarity promotes trust for both parent and baby. Being known develops trust too, and for a baby, is crucial to the development of the self. Again, it is clear to the parent that the caregiver has anticipated their arrival, having wrapped the baby carrier around herself. The carrier also allows her to be physically close to Alma, which research has shown, can be an important variable in promoting attachment. The carrier also allows the caregiver to focus on a few children and the father simultaneously.

Luis and Alma

Luis enters his daughter's child care setting with his nine-month-old daughter Alma in his arms.

A **familiar caregiver** greets them **by name** as she takes Alma into a **soft-body baby carrier** that is already strapped around her, **waiting for** Alma's arrival.

Alma whimpers with the transfer and then the caregiver **invites dad and Alma to sit** with her and three other children on the floor, **looking directly into Alma's eyes and** using a **sing-song voice**. Luis says he has to go or he will be **late for work**. A **two-year-old hands Alma a bottle containing colorful beads and says "Daddy come back."** The caregiver again looks into Alma's eyes and then to her father and back and **repeats** the child's statement, **"Yes, your daddy will come back to pick you up later."** Alma smiles.

The caregiver then asks Luis if tomorrow he might come **a few minutes earlier** to have time to **read a picture book** so the baby can get **used to the routine at separation** time. Luis smiles and says, **"I will really try."**

The caregiver is aware that especially early in the year, she should not expect parents to step forward or know what to do. The invitation is yet another way to begin to deepen the new relationship. A high-pitched sing-song voice has been shown to be a evolutionary method for adults to attract babies for attachment. Not found in every program, this two-year-old shows signs of evolved pro-social behavior by helping the new baby understand how their world works. It means that he has observed adults doing such an action and using such words and has internalized it to use with a baby in an unsolicited manner. By shifting attention from baby to father, the caregiver connects them with her, which even a 9-month old can experience to provide a sense of safety ("these two people go together") by repeating what the two-year-old has said. Repetition is a hallmark of early learning, and by repeating what the two year old has said, the caregiver is able to create learning about hellos and goodbyes for younger children.

Although she has noticed that he always is running late for work she still tries, in a gentle way, to encourage him to come a bit earlier, and gives a rationale so he can understand the reason why. As a result, they are in tune, and although he can't promise, he does the next best thing.

Investing in the Birth-to-Three Workforce

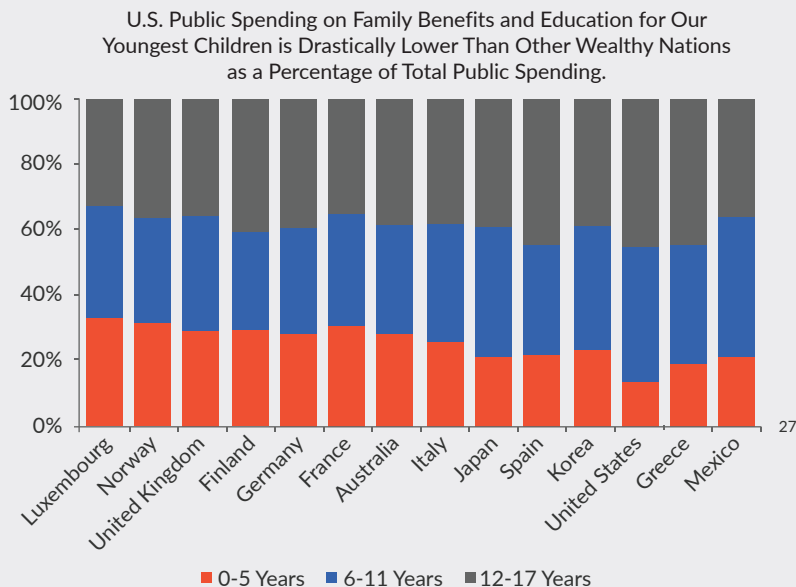
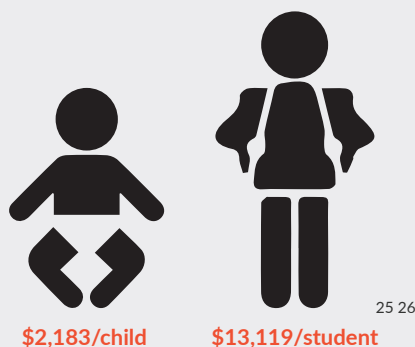
By establishing trusting relationships, and with an understanding of the necessary content about development and how young children learn, educators learn how to support children's growing sense of security and well-being, recognize and cultivate their preferences and interests, and facilitate their exploration of the world. Currently, the infant / toddler educator workforce is not receiving enough professional learning support to engage children in this way.²⁴

Why then do we offer the least amount of specific education and support to the adults entrusted with supporting early learning experiences?

The United States currently spends about \$18 billion annually on professional development for educators in public K–12 schools, which translates to approximately \$5,625 per teacher per year. This is five times more than Congress allows Head Start to spend on training and technical assistance. And, Head Start programs are typically better resourced than the average child care program in this country. Even if states allocated their entire allowable federal allocation from the Child Care Development Block Grant's (CCDBG) quality set-aside pool (child care dollars that go to states), it would only translate to \$234 per educator each year for professional learning, 20 times less than is spent on professional learning for educators in the K–12 system.

Many still consider infant / toddler educators to be “babysitters.” If we want to improve the quality of early learning experiences, we need to invest in our early childhood system in the same way we do our K-12 system—by treating it as a public good.

Federal, state, and local funding for early childhood education was close to \$30 billion in 2016. This is compared to \$668 billion for public elementary schools in the United States.



The Political and Policy Landscape

It is encouraging that public and political momentum is growing around the idea that more needs to be done to support families with young children. Eighty-nine percent of voters rate making early education and child care more affordable for working families as important.²⁸ President Trump mentioned universal access to paid family leave in

his 2019 State of the Union Address and a bipartisan, bicameral agreement on the fiscal year 2020 federal spending bills delivered over \$1 billion in increased funding for federal early learning and care programs. These investments build upon historic funding increases to the CCDBG in FY2018 (\$2.37 billion over FY2017 levels).^{29 30} Elizabeth Warren and Peter Buttigieg, Democratic presidential candidates, have issued calls for universal access to child care.³¹ Both Mike DeWine, newly elected Republican Governor of Ohio, and Gavin Newsome, the newly elected Democratic governor of California, campaigned extensively on expanding access to early care and education.^{32 33} Senator Cory Booker recently introduced a proposal aimed at providing free child care to student-parents, as well as increasing and improving the infant / toddler educator workforce through mentorship and training.³⁴ This emerging bipartisan support for increased investment in children birth through age three could mean that additional public resources may soon be a reality. As increased investment to expand access to child care becomes available, it is critical that the national conversation also focuses on the quality of that care.

Fortunately, momentum is also growing within the early child care field to focus attention on workforce development issues for early childhood educators, in large part due to two publications released by the National Academies of Sciences, *Transforming the Workforce for Children Birth through Age 8: A Unifying Foundation* and *Transforming the Financing of Early Care and Education*, the *Power to the Profession* Initiative, and the success of efforts to create access to universal pre-kindergarten.

Power to the Profession Initiative

Power to the Profession, a national effort convened by the National Association for the Education of Young Children (NAEYC), is “a national collaboration to establish a unifying framework of knowledge and competencies, qualifications, standards of practice, and compensation for all early childhood educators who work with children birth through age 8 across early learning settings.” The initiative is led by a national task Force of organizations who represent early childhood educators serving children birth through age 8 across settings. Power to the Profession has brought together practitioners, researchers, professional learning experts, policy makers, and various other stakeholders to develop recommendations that define roles within the early childhood education field, discuss differentiated preparation pathways, specializations, and compensation as well as the resources, infrastructure, and accountability structures needed across states and systems to support a prepared, diverse, and well-compensated early childhood education profession. Notably, Power to the Profession has adopted the vision that we should build toward a structure in which educators with lead classroom responsibilities across all settings and age bands earn a bachelor’s degree in early childhood education at a minimum.

Recently, the initiative issued recommendations to support early childhood educators, including preparation programs, employers, professional governance, and state and federal government and agencies. One piece of this set of recommendations is for each state to create a system for licensing all early childhood educators. The state licensing systems will:

- Use licensing assessments approved by the professional governance body
- Include criminal background check requirements
- Include licensure reciprocity agreements with other states

States will create a board to administer state licenses, hold individuals accountable for working within their scope of practice, and address complaints about those who breach the code of ethics.³⁵

One significant focus of existing workforce development efforts has been to advocate for a bachelor's degree for all early childhood educators. Credential or degree requirements are important and can help to generate the public and political will needed to address the low compensation, poor working conditions, and lack of comprehensive benefits for infant / toddler educators by offering a clear argument for pay parity with similarly credentialed teachers in elementary schools. Offering financially feasible pathways to bachelor's and other degrees can also provide opportunities for upward mobility for a historically disenfranchised workforce. We support efforts that provide for these opportunities and are encouraged by reform platforms—like BA requirements for all infant / toddler educators—because they recognize that infant / toddler educators require specialized skills and knowledge just as K–12 teachers do and provide a “north star” for reform. Holding infant / toddler educators to the same standards as their K-12 counterparts is a critical step in elevating the workforce and generating the public will necessary to fairly compensate them. **However, credential requirements do not, in and of themselves, offer a clear pathway for improving program quality. To do so, they must be carefully designed to deliver the types of professional learning experiences that truly impact educator practice,** not just offer credits towards a boilerplate BA or AA degree. Many early childhood BA or AA programs lack sufficient specific emphasis on the developmental needs of infants and toddlers and fieldwork placements in infant / toddler settings are rare. Moreover, most traditional programs do not provide differentiated opportunities for experienced providers to learn in ways that honor their experience. To sustainably transform the quality of infant / toddler care, a system of tailored professional learning is needed that is anchored in the principles of adult development, including job-embedded learning experiences, and leads to increases in compensation.

What is Quality Adult Professional Learning?

The best professional learning opportunities are intensive, sustained, and rooted in an understanding of adult development.^{36 37 38} It is essential that adult learners have opportunities for practice and reflection that allow them to make meaning of their experiences and deepen self-awareness, build the courage and confidence to think independently and creatively, and develop the skills to work respectfully and collaboratively with others in a world in which conditions are in constant flux. The following descriptors aim to more fully describe what we define as high-quality adult learning and are rooted in Bank Street's developmental-interaction approach.

Development emphasizes shifts and change over time (psychologically, physiologically, etc.) and *interaction* refers to the learner's engagement with her environment: materials, ideas, peers, adults, family, the community, and the larger world.³⁹ Doing this well requires meeting learners of all ages “where they are.” Facilitators of the learning process must possess deep knowledge of the natural variability of human development and be adept at observing learners very closely.

- Experiential learning that provides opportunities for **practice and reflection** is essential. Learners learn best when they have multiple opportunities to bring **first-hand experiences** into the learning process to make sense of how new ideas translate into practice.
- Asking adults to work with children in new ways requires **observation, assessment** of where they are with their current practice, ongoing **dialogue**, and an agreed-upon direction for change of practice.
- Professional development programs should foster adult learners' capacity to communicate and **create relationships** while focusing on promoting a foundation of knowledge in all areas of human development and supporting them as current and future advocates in their work within and across diverse communities.
- Adult learners learn best when they have choices in their learning programs.

THE PATH FORWARD: DEEPENING EXPERTISE

A Vision for Stronger Professional Learning:

A System of Residency Programs for Infant / Toddler Educators

To deepen expertise, infant / toddler educators need adequate time to learn alongside an experienced educator who can help translate theory and research into practice.⁴⁰ This can be provided through residency programs that offer extended time for educators to learn while working in a classroom or early child care setting led by an experienced colleague. These kinds of programs can serve both educators who are new to the field, as well as the many educators who have been working for years without adequate professional support. Yearlong residency programs have been effective in improving school systems both internationally and domestically.^{41 42 43} New rigorous studies of teacher residency effectiveness consistently demonstrate strong, positive differences in candidate diversity, their initial entry into the profession, and their retention.^{44 45 46 47 48}

Infant / toddler education is a clinical practice profession and professional learning opportunities should reflect this by combining relevant coursework with the opportunity to apply one's learning through practice with guidance from a knowledgeable coach. As Karen DeMoss, Director of Prepared To Teach at Bank Street, writes in her paper "Clearing the Path: Redesigning Teacher Preparation for the Public Good":

Whether one is training to be a concert pianist, a winning quarterback, a surgeon, or simply learning to drive, practice—and the kind of practice—matters. Building true expertise requires practice that is not simply rote repetition or imitation of others' work: just as knowing which notes to play is necessary but insufficient to be a successful musician, memorizing a set of techniques to use with students does not ensure a novice teacher can become an expert. Candidates need sustained practice that is contextualized and deliberate, with frequent self-reflective processes that reference others' expert knowledge.⁴⁹

Apprenticeship models are gaining traction as a viable practice-based credentialing option for the early childhood education workforce. The Learning Policy Institute and New America have highlighted registered apprenticeship programs as a strategy to meet the growing demand for early childhood educators with bachelor's degrees.^{50 51} And in its recent statement on child care reform, the White House promotes the establishment of child care apprenticeship models.⁵² The strategy we outline in this paper offers a detailed description that can be used to inform these models by describing a robust approach to on-the-job learning through placement in high-quality settings, intensive coaching, and infant / toddler-specific coursework that leads to recognized credentials.

Our vision begins with a description of these essential elements of an effective residency model:

- A full-time job working as an infant / toddler educator in a high-quality placement site
- Opportunities for reflective supervision and expert coaching
- A competency-based approach to coursework that is offered in a blended format (online and in-person) so it can be easily accessed

We then describe how the model can be adapted to deepen the expertise of existing educators in the field. Whether for new or existing educators, the residency model can be adapted for various credentials and the one-year residency component should be designed to align with credential requirements to ensure the coursework completed gives candidates "stackable credits" toward earning credentials, including credits earned towards a BA, AA, or Child Development Associate (CDA) credential.⁵³ Scholarships for coursework and credits should also be offered for all pathways.

High-Quality Placement Sites

Residents will learn on the job in placement sites that embody high-quality care in either a child care center or home-based setting. While several tools have been developed to measure and evaluate early childhood program quality, high-quality care settings at their core offer infants and toddlers developmentally meaningful interactions that help foster early brain development. Earlier in the introduction, we included a definition of high-quality care. How these principles are applied and implemented varies across setting type and must be adapted to local contexts.

One challenge to implementing a residency program in many areas will be ensuring an adequate supply of high-quality placement sites. We recommend beginning with a qualitative assessment of infant / toddler programs within a state or other locality that can help determine the number of infant / toddler programs poised to serve as supportive learning environments for residents, as well as highlighting any supports programs might require to develop into supportive learning environments. If intensive support is required and a program is willing, an initial step in the design of a residency program should be to assign a coach to work with the site director and educators in the program to strengthen the practice of educators within the site and improve the overall quality of care. In addition, systems should consider allocating funding to pay some percentage of resident salaries so that additional residents can be placed in high quality settings. This would allow high-quality sites to train more than the number of available assistant teacher lines they have open, enabling more new educators to be trained in high-quality sites faster.

Expert Practitioners as Mentors

The residency program model provides the opportunity for a resident to work alongside an experienced practitioner or “mentor educator” who can translate the best of educational theory into effective practice. Mentor educators can be lead teachers in infant / toddler classrooms in center-based settings or educators working in or running home-based or family child care programs. Residencies are most likely to be effective if the relationship between mentor educator and resident is sustained for at least one year.⁵⁴ It is important to note that the process of serving as a mentor can also have benefits for the experienced practitioner. Mentor educators often find their professional lives enriched, providing leadership opportunities in a field that historically has had limited career ladder advancements. Mentor educators can develop deeper “professional capital” that “helps the profession consolidate a stronger knowledge base, building expertise and efficacy among partners.”⁵⁵

At the same time, training new educators is challenging work and mentor educators will require support to learn and practice the skills, knowledge, and dispositions to be effective in this role. Training on key coaching techniques, such as reflective supervision, is a necessary part of any residency program model. In the following vignette, we illustrate what the relationship between a resident and her mentor educator might look like.

Yvette and Jeanette: A Mixed-Age Classroom Six Months to Three Years

Yvette, 20, had been attending a child development program at a local community college for a few months when her mother fell ill. With three younger siblings and her father’s full-time job, there was no question as to who would take over her responsibilities. A few months later, as her mother recovered, Yvette heard about the residency program, which sounded perfect, because she could get [college credits](#) while gaining a year of solid work experience in a center-based child care program.

College credits is the method many participants prefer to receive for course work and fieldwork experiences.



The First Few Weeks: Time #1—September

Yvette was quite nervous the first day. During orientation, they kept saying “remember, this program isn’t school—you will experience new ways of learning.” She couldn’t help but wonder what those new ways of [learning](#) might be and whether the lead teacher, Jeanette, would judge her abilities harshly. But Jeanette met with her often to clarify expectations and discuss the approach of the program, saying, “If you disagree with something you see me doing, or if it is different from what you are learning elsewhere, please let’s talk about it. That is really [important.](#)” Even with this surprising invitation, the first few days did not dispel her worries. This center was SO different from her placement at college—truly like another world. She wondered: Why were children from eight months to 2.3 years together in the same room? The idea of remembering the different developmental level of each child along with their personality seemed overwhelming. Why so few toys? There were even three or four of the same things.

And what’s with all the choices? “Do you want to stay here at the water table with Yvette [or](#) go outside with Jeanette? Are you done with your painting?” How could a child so young know if he or she was finished with a painting, she wondered. Yvette was used to adults telling the children what to do. The final straw was when Joseph, age two, who had been misbehaving all morning, was allowed to wander around during circle time. It is true he did so quietly, but why wouldn’t they just tell him to sit still? Yvette knew she should talk about these reservations with Jeanette, but she was still hesitant, although Jeanette was encouraging and told her she was doing well.

As a Latinx woman, Yvette was also pleased that Jeanette and another teacher spoke a significant amount of Spanish since there were three bilingual children in the room. To be honest, Yvette was slowly gaining tremendous respect for Jeanette’s way with the children. Fighting over toys had been a big issue at the previous center. Yvette began to see that having a few of the same toys reduced the number of interventions needed. And by the time the residency classes began, Yvette was able to discuss some of her questions with [colleagues](#) in her weekly conference group and provide examples from her mixed-age classroom. She wrote in her journal one evening that she thought having [all the different](#) perspectives (classroom teacher, instructor, readings, program peers, children, and parents) were helping her fit ideas together in such interesting ways, although sometimes she felt like her head was going to burst.

The Three-Month Evaluation: Time #2—Early December

Jeanette began by asking Yvette how she thought she was doing. Yvette was already used to the ball being thrown into her court, and they laughed together that this would have to be one of the “new ways of learning” that had been mentioned in orientation. In her [self-evaluation](#), Yvette wrote that she was observing more deeply, watching for children’s cues, and making fewer assumptions about the meaning of children’s behaviors. And she now had the confidence to ask Jeanette some questions.

This is a crucial point to consider when designing professional development programs that have continuity over time and encourage independent thinking. It takes time for participants to adapt to new ways of learning that are less judgmental.

Young students (especially women) working in educational settings often fear raising questions with their lead teacher especially if they think it may contradict the teacher’s approach.

Helping very young children make choices gives them a bit of control over their lives in which they ultimately have little control. It also helps children develop a sense of themselves, e.g., growing into a preschooler who can say, for example, “I like yellow because it makes me happy.”

Peer problem solving plays a crucial role in an integrated learning setting.

Research has demonstrated that in fact this is the case. Combining classroom experience with some form of coaching and a course of applied child development study is more effective than any one of these alone.

This helps develop self-assessment skills for independent growth and agency once the program is over, which can support a longer career in the field.

Yvette wondered if the adults talked to the children too much and if that might interfere with children's developing conversations. Jeanette said that she thought that was quite a profound question and that they should raise it for discussion at the next staff meeting. She also asked why the ["curriculum"](#) didn't get changed up more often. They had been focused on balls since October. Jeanette talked about how young children are figuring out Big Ideas, or categories, into which they can fit things. Exploring the different sizes, amounts, colors, and uses of balls is a more reality-based way to learn than without context. She noted that the wonder of this age propels children's exploration about concepts that adults take for granted, like when Emely shouted out "LUNA" (moon) during a conversation about balls and roundness. Jeanette suggested that she think of a Big Idea that the children might explore after the winter holidays.

Jeanette agreed with Yvette's self-assessment and added that she thought that Yvette was "being with" the children more than "taking care" of them. She said that there is no one way to be with children and that she knew the residency program wanted her to find her own voice. Yvette said that perhaps some of the differences in child care approaches might be class or culturally based, and Jeanette said, "absolutely!", adding that those issues were complex and could generate important conversations with other staff. Finally, Jeanette added that two areas she believed Yvette could work on were helping children through the tough transitions of the day and talking with parents in a more relaxed way while sharing some of her observations of their children—what they enjoyed, what they found funny, etc. [She said they could talk more in their times together about strategies.](#)

Winter: Time #3—A Hard Couple of Months

Coming back from the winter vacation meant that the children had to get used to everything once more, and it felt like September all over again. Then, in early February, the children, parents, and teachers all got sick from each other. Yvette was usually strong and healthy, but that flu lingered for weeks. Everyone seemed cranky! And Joseph, now two-and-a-half, not only was not improving in terms of his everyday behavior, but still wasn't talking much and continued to wander around without much engagement. His parents were adamant that he not have a behavioral assessment. To top it all off, Jeanette said it was time for Yvette to try running circle time, which on her first attempt dissolved into chaos. Jeanette gave her some constructive feedback, but Yvette thought it was out of reach. The only positive development in Yvette's eyes was that her Big Idea to do a snow "study" during the winter months took off exceptionally well.

Spring: Time #4

As Jeanette had predicted, most of the rough edges in the classroom melted away with the snow. Children had routines down pat and the day almost seemed to run itself. Even Joseph, who still had little language, was hanging out with younger Emely, who was advanced in her language but physically timid. Joseph

Jeanette poses an interesting perspective on the well-worn question of whether infant/ toddler programs use a "curriculum" in the traditional use of the word. Jeanette goes beyond this dichotomy and begins from the inside out—explaining the developmental organizing function of Big Ideas—(often called a 'study' with older children) for infant and toddler learning. Big Ideas are the conceptual glue that helps them make sense of the world in an integrated way as opposed to lots of letters, colors, and facts thrown about.

Jeanette demonstrates to Yvette again that she is paying attention to Yvette and her learning. She is "holding her in mind." In this way, suggesting two possible areas of growth can be taken in for what it is and not felt as negative criticism by Yvette. Jeanette's behavior is also key modeling for the time when Yvette mentors a student or for now, in her conference group, as she listens to others in a mindful way, considering where each person has come from and where they might be headed in their learning.

was learning words from her in their play, and Emely ran halfway up the slide with him one day, surprising everyone. Jeanette taught Yvette a few chords on the ukulele, and that gave Yvette more confidence in leading circle time. Yvette began writing very short notes home about one notable event of the day, like when Emely noted in a whisper “la arena es muy tranquilo” (the sand is so quiet) at the sand table. In their final conference, Yvette framed her main goal for the next year as learning more about children with special needs, especially sensory issues. Her residency year was almost over, although her learning network would continue for years to come. Not an easy year, but so very worth it!

This is an example of the reciprocal learning that can happen in mixed-age classrooms.

Supervised Fieldwork and Advisement

Supervised fieldwork and advisement leverages the learning that can take place at a residency site by providing opportunities for reflection and bridging the connection between coursework and practice. It is a tripartite design that blends individual and group intense supervision with practice in the field and coursework. Supervision from seasoned educators (core faculty from higher education, coaches affiliated with an intermediary organization, or experienced program directors or supervisors) supports residents by developing their ability to connect theory to practice and to reflect deeply on their own growth as educators.

Done well, supervised fieldwork supports residents in finding their own voices as educators. It is deeply personal and serves to advance an educator’s self-knowledge as it pertains to building a viable identity in their role as an educator. These kinds of experiences are especially important when it comes to work with infants / toddlers and their parents. At times, working with young children and their parents can raise long-buried primitive emotions from one’s own upbringing. Successfully acknowledging these experiences can lead to greater awareness of one’s own strengths, weaknesses, beliefs, values, and practices and the search for the best-functioning match between one’s own talents, uncertainties, lifestyle, and the role for which one is preparing.

Effective residency programs must include support mechanisms that integrate personal and professional development, making it possible for residents to deeply experience the interplay of cognitive and non-cognitive elements as part of their own learning. Effective supervised fieldwork and advisement is a way to meet this need. The group experience also helps practitioners to think about their own development while learning from their peers’ experiences. This process builds empathy and requires holding others in one’s mind from week to week in a way that parallels what we want infant / toddler educators to be able to do with the young children and families in their care. In addition, the advisor meets with students individually, visits them in their residency placement sites, and becomes the key figure in coordinating student development toward competence in their roles and the consolidation of their identities as infant / toddler educators. Ultimately, aspiring educators internalize the qualities of the learning environment created for them and develop their own educator styles that reflect their personal experience in learning to become an educator. When possible, supervised fieldwork and advisement should occur in person, but a virtual system can be used to supplement the model as needed—for example, in the case of rural communities.

A Competency-Based Approach

A competency-based program can offer a flexible way for residents to build on their knowledge and abilities.⁵⁶ While some competency-based approaches emphasize the development of very discrete skills through standardized assessments, our vision is grounded in an approach more informed by the power of integrated learning experiences where skills are demonstrated in context. Proficiency could be demonstrated through observations or mastery projects, for example.

To work, competency-based programs need to be organized around a clear framework that defines what infant / toddler educators need to know and be able to do. That framework should be grounded in both evidence and community-based research on local needs to produce clear, measurable, meaningful, and integrated competencies.⁵⁷ The framework can then be used to develop a “customizable path of education” for each cohort of students with projects and learning opportunities that can be adapted and designed in new ways to take into account each candidate’s strengths and areas for further growth.

Defining What Infant / Toddler Educators Should Know and Be Able to Do

Several organizations have published guidance on the essential knowledge and skills early childhood educators working with infants and toddlers should know and be able to do. Perhaps most notably, **ZERO TO THREE** has developed the *Critical Competencies for Infant-Toddler Educators*, which they use as the foundation for professional learning initiatives with infant / toddler educators, coaches, and professional learning trainers. Established in 1977 by researchers and clinicians in the fields of child development, early intervention, child trauma, mental health, early childhood education, family support, and pediatrics, ZERO TO THREE translates science and knowledge—especially information about early experiences that help children thrive—into a range of professional development, practical tools, faculty institutes, and systems resources for use by adults who influence the lives of young children.⁵⁸

Notably the *Critical Competencies* address gaps cited by the National Academy of Sciences in Transforming the Workforce related to family engagement, assessment, and research.⁵⁹ If broadly adopted, these competencies could serve as an important driver of quality across states and programs and address the concerns raised by the National Academies of Sciences, Engineering, and Medicine.

These competencies also informed Power to the Profession’s development of standards and competencies for the early childhood field that define what all early childhood educators working with children birth through age 8 must know and be able to do—the *Professional Standards and Competencies for Early Childhood Educators*. Importantly, Power to the Profession has identified that ZERO TO THREE’s competencies go deeper than its own general standards and can serve as the foundation for professional learning initiatives with infant / toddler educators, coaches, and professional learning trainers. ZERO TO THREE has assessed alignment of their *Critical Competencies for Infant-Toddler Educators* against the following other frameworks in terms of language and child outcomes:

- Council for Professional Recognition Child Development Associate (CDA) Credential competency standards
- Michigan Association for Infant Mental Health (MI-AIMH) Competency Guidelines for Infant Family Associates
- Division for Early Childhood’s (DEC) Recommended Practices in Early Intervention/Early Childhood Special Education
- WestEd’s Program for Infant/Toddler Care topics and objectives
- Collaborative for Understanding the Pedagogy of Infant/Toddler Development (CUPID) Draft Competencies for the Infant/Toddler Workforce
- Center for the Study of Social Policy Strengthening Families Protective Factors

ZERO TO THREE’s Critical Competencies are also aligned to several observational tools, including the Quality of Caregiver-Child Interaction for Infants and Toddlers (Q-CCIIT), and were developed using the Irving Harris Foundation Diversity Tenets as principles, which have been applied throughout all of their professional development workshops and tools in terms of considerations and specific curricula focus.

Furthermore, while tools like competencies can provide a useful anchor for offering clarity and coherence across systems and programs, it is important that they take into account flexibility in implementation and the diversity of the current workforce. Keeping context and culture in mind when making instructional and programmatic decisions is critical. Even the most expertly designed standards and related competency resources must be viewed as tools to empower and support educators to make ever more informed choices, not to regulate their decisions.

High-Quality Blended Learning

As we outline in greater detail later in the paper, limitations in the capacity of higher education and local partners for delivering all coaching and coursework in person will likely necessitate the delivery of coursework through a blended learning model (a combination of online and in-person formats). It is critical that we design online learning carefully to ensure it reflects knowledge about high-quality adult learning. It is also important that the learning opportunities participants engage in conjure the kinds of hands-on, interaction-based learning experiences that define high-quality infant / toddler care. While interactions might occur across a computer screen instead of in person, active engagement with teachers and peers is essential and students must be expected to participate as “active members of the online community, leaving no room for passive participation.”⁶⁰ Effective online pedagogy does not replicate face-to-face methods in digital format. Instead, it requires deliberate shifts in instructional methodology. “Online courses need not be efficient vehicles for content delivery. Rather, they can be communities of inquiry that foster critical engagement through collaboration and critical analysis of content and course questions and themes.”⁶¹ For example, leveraging the use of technology, participants could be asked to upload video recordings of themselves in practice for group discussion and self-reflection. If done in a sensitive manner, these self-recordings can strengthen trust in a learning community and lead to a more powerful learning experience.⁶²

Adapting the Model for Existing Educators

At its core, this residency model can attract and support new educators to the field and also offer existing educators meaningful professional learning and pathways toward credentials. Importantly, a competency-based approach provides flexibility that can address the unique needs of this more experienced group.⁶³ By providing an opportunity to both earn credit towards a degree, certification, or other credential for abilities and knowledge that an educator already possesses while also working full time, competency-based residency models become a viable and meaningful opportunity. This is especially important for family child care educators, since long days, the responsibilities of owning and operating a business, and the need to arrange for a substitute are all challenges to pursuing higher education [or continuing education].⁶⁴

However, in order to best meet the needs of existing educators, the vehicles for providing in-person mentoring and advisement need to be adapted. Experienced educators should receive consistent, job-embedded (on-site) coaching from an experienced infant / toddler educator who works for a local college or intermediary organization. In some cases, high-capacity site leaders might also be able to serve in the role of coach.⁶⁵

Because experienced educators in this model will complete their residency year at their existing job, which might not qualify as a high-quality placement site, residency programs might also consider building in a plan to provide coverage for these participants to enable brief intervisitations with other child care programs while ensuring the time away does not disrupt the continuity of care for infants and toddlers.

In addition to regular coaching, existing educators should participate in a professional learning group that meets regularly to discuss experiences, problems, and techniques. This group would include other experienced educators participating in the residency program and be facilitated (initially) by the coaches, with the goal of developing the



participating educators to sustain the work as a self-supported group after the program year is complete. Where possible, these meetings should occur in person, but a virtual system could supplement the model as needed. This kind of group work is ideal for talking through what can become complex issues, especially how best to partner with families in authentic ways. The following vignette illustrates how a thoughtful coach used a strength-based parallel process to help a dedicated home-based child care provider reframe her relationship with the mother of a baby in her care.

Janice, Family Care Provider, and Evonne, Mother of Nala, 8-Months-Old

Janice on Her Own: Time 1

Janice sighs as Nala gets picked up by her mother Evonne, without even a salutation to Janice. She thinks to herself, “From day one, we never hit it off. I feel like a babysitter when she asks things, like did you change her diaper this afternoon? I should control myself more but we just kind of get into it. She is SO overprotective. And it’s not like it’s her first child—she also has a four-year-old.”

Example of a common experience of caregivers.

Then Janice felt her heartbeat quicken as she wondered if Evonne might take Nala out of her care, which would leave her with only three children. It was hard enough to make ends meet as it was.

Janice at the Beginning of Her Residency: Time 2—First Interaction With Coach Sharon

Janice waited a few weeks before bringing up the issue about Nala’s mom to her coach. Janice had been in another program previously that was cancelled after a few months, so she just wasn’t ready to put all her eggs in this basket. Also, Sharon seemed like she was from another world. Would she really understand? Eventually Janice expressed her frustrations, and Sharon immediately acknowledged how difficult it must be to constantly have one’s abilities questioned. Sharon asked a few questions, determining that Janice thought that Evonne and Nala seemed to have a good relationship. When she asked if the four-year-old was in Universal Pre-K, Janice said no, that he had special needs and is in a therapeutic nursery part-time and that the mom also works part-time. In hearing herself describe this situation, Janice realized that she hadn’t ever thought about the effect of all these pressures on Evonne.

Coach provides support for Janice and verifies her feelings.

Sharon’s questions help Janice pull all the disparate information she has about Evonne into a more coherent story.

Sharon asked if Janice’s two children were ever in child care. Janice said that her mother took care of her first, but that her younger child was in a family child care close to home. It was just “OK,” and that was part of what made her want to do this family care program: “To do it better!” When Sharon asked what about it was just “OK,” Janice rattled off a list of things, including that she was told every day that her daughter was a “good girl” and everything was “fine.” Janice said, “I never had a sense of what they did all day.”

Example of coach helping provider use her own experience as a mother as a fund of empathy and perspective taking.

Sharon asked how that made her feel, and Janice says “upset.” Sharon mentioned that there are a lot of complex reasons why Evonne might be



anxious, then asked if Janice had thoughts about this. It was dawning on Janice that Sharon hadn't yet exactly told her what to do, but had set up questions that take her in a new direction. Then Janice asked a question, with an inflected ending: "Perhaps Evonne also wonders about what goes on all day?... Maybe I could tell Evonne that I want her to feel good about Nala's time here, and that I hope Evonne can trust me to give Nala a good experience." Sharon said, "that sounds like a solid plan to me." Sharon also asked her to think about what else she might do to support Evonne. This discussion stayed with Janice throughout the week. She also realized that she felt more trusting of her coach.

Janice experiences a different kind of support that doesn't "tell" but "leads."

Example of helping a practitioner think about advocating for parents.

Janice and Sharon: Time 3

Although Janice and Sharon didn't discuss Evonne and Nala for a few weeks due to pressing programmatic needs, Janice continued to reflect on the question that Sharon posed about her own daughter's child care experience.

At pick up one day, she looked Evonne in the eye and without any premeditation asked her how her day was going so far. Evonne gave her a surprised look and responded, "I'm just tired, you know?" Janice nodded knowingly and said she hoped Evonne would get some good rest that night.

The next few days were uneventful, but Janice continued to feel more confident. She also thought about the idea another caregiver talked about in class: writing on a blackboard every day: "Today we ..." Janice dug out a blackboard from the basement and, before families arrived, wrote:

Peer learning.

Today we played with wet sand. Some of the babies made happy sounds and the two-year-olds put wet sand on their faces, looked in the mirror, and then pointed at each other. (Janice had just learned in her residency class that older toddlers and twos already have a sense of who they are when they look in the mirror and mentioned this to a few parents at pick up.)

Helping families link program activities with learning.

Class content/practice integration.

When Evonne looked at the blackboard, she asked, "Nala liked the wet sand?" The two adults then had a short conversation about young children and play that uses their senses. Janice was able to explain how it calms infants and toddlers to have many different experiences like this early in life to help them learn about the world. Sharon felt good about being able to share this information that she learned in her residency.

Integration of class learning into everyday life.

Development of professional identity is crucial to staying in the field longer.

Janice and Sharon: Time 4

The next time Sharon visited Janice, they talked about what transpired since they last met. Sharon smiled and commented on the good work. Janice said, "It's not a blessed relationship yet!" and credited the woman in class with the blackboard idea.

Expresses an understanding that forging solid relationships with families takes time.

Here Sharon speaks up for the caregiver in a way that few have done before to support Janice standing up for her own experience.

Example of a participant able to generalize deep learning.

Sharon said, "You deserve credit too! You aren't 'fighting' Evonne as much but 'joining' with her." "I guess that is true," Janice said, "and I see that it really is on me to reach out to parents, not the other way around."

Financial Aid and Scholarships

The current infant / toddler workforce is comprised almost entirely of women, 40 percent of whom are people of color.⁶⁶ The infant / toddler workforce is also poorly compensated, lacks access to comprehensive benefits, and typically does not have the financial resources required to pay for further education. It is important to elevate or “professionalize” the work of educating infants and toddlers to achieve a recognized status that acknowledges the importance of this work and the potential it holds. However, it is also critical that such efforts do not simultaneously further the systemic obstacles posed by the racial and gender biases those currently working in the field often face. Simply put, “professionalizing” the infant / toddler workforce cannot come at the cost of putting low-income women of color out of work.

To ensure broad access, residency programs must incorporate adequate scholarships to cover coursework for additional educational attainment. While several scholarship programs currently exist for early childhood educators, it is possible that residency programs might have to partner with states and other localities to identify additional funding streams to supplement those that exist.

Scholarships for Infant / Toddler Educators

As outlined by Power to the Profession, “Equitable access to comprehensive supports and scholarships include those that cover:

- The cost of books and other course materials
- Transportation to higher education institutions (and field experience settings)
- Wrap around supports such as child care, food/housing assistance, and academic/career counseling
- Release time from current work settings to complete requirements (accompanied by the provision of substitutes)
- Supports for individuals who are English language learners, and those who need developmental/remedial education⁶⁷

One example of a comprehensive scholarship program that offers support to early childhood educators is the **Teacher Education and Compensation Helps (T.E.A.C.H.)** Early Childhood® Scholarship Initiative. T.E.A.C.H. provides financial assistance for incumbent early childhood educators and operates in 22 states and the District of Columbia. Most of the funding comes from public dollars (CCDBG, state and/or county), but may also include funds from United Way, foundations, and corporate sponsors. Although the structure of the program is generally similar across states, the amount of support given to the workforce and the total funding varies by state. Scholarships may support the acquisition of coursework leading to the CDA Credential and ECE associate, bachelor’s, and master’s degrees.

To be eligible for a T.E.A.C.H. scholarship, educators must currently hold a high school diploma or General Equivalency Diploma, work for a licensed ECE provider, earn below a set hourly wage threshold, and work a minimum number of hours per week. Providers agree to provide paid release time to educators to help them balance work, family, and school, and are reimbursed by T.E.A.C.H. for part of that cost. The T.E.A.C.H. program also pays for the majority of tuition, fees, and book costs not covered by outside aid at an approved college or university. Participating ECE professionals commit to remaining in their current center for a period of time following the completion of a contracted number of credit hours, while their employer commits to providing a raise or bonus.⁶⁸

Post Completion of the Program

In order to ensure that these residency programs provide an ongoing benefit to the broader system, it will be important to require that residents commit to remaining in an infant / toddler educator position following completion of the program. Specific commitments should be tailored based on context and funding source. For example, a three-year commitment to a particular center or system of care could accompany funding for participation. In exchange, the center or system of care should commit to increasing the educator's wages once they have earned the required credentials. Although ultimately dependent on context and funding sources, educators' increased salaries start at a living wage and eventually lead to pay parity with similarly credential elementary school teachers. Ongoing public funding streams will be needed to pay for this increase in compensation either through adjusting subsidy rates, providing an additional funding stream dedicated to increasing compensation, or off-setting administrative costs so programs are able to allocate more money to compensation.

Adapting the Model for Home-Based Settings

Home-based child care is an important option for families seeking affordable, accessible care that fits their needs. Nearly 30 percent of infants and toddlers attend home-based child care as their primary arrangement, compared to 12 percent that attend center-based child care.⁶⁹ Developing a pipeline of home-based child care options will be a critical part of expanding access to affordable child care for all American families, but requires taking into account certain additional considerations to ensure these settings—and the educators who lead them—can accommodate supporting residents. For example, many home-based child care programs are not large enough to hire assistant teachers and do not have the budget to pay for additional staff. **As one solution, residency programs could build in funding to pay the salaries of residents working in certain home-based settings if available positions do not currently exist.** In addition, many home-based providers serve as both the lead educator and the business owner of their child care program. Given that, it is important that aspiring home-based providers learn not only about child development and the pedagogical aspects of working with infants and toddlers, but also have access to training that enables them to own and operate their own businesses. Residency programs could partner with home-based or “family child care” networks, like All Our Kin, to ensure residents interested in working in home-based child care programs have access to the necessary operational supports and trainings.

Home-based or family child care networks like **All Our Kin** are organizations that support home-based child care providers (including family, friend, and neighbor providers). All Our Kin offers its network: coaching support from business consultants, workshops, conferences, scholarships for college courses and accreditation, regular network meetings, and a zero interest loan program. All Our Kin currently serves 888 family child care educators which is about 4,300 children and families across 47 cities in Connecticut and New York. All Our Kin works directly with the providers serving our lowest income children: 72 percent of the children in their care qualify for state subsidies, only available to low-income working families and families on public assistance. All Our Kin's model has proven to increase the supply, quality, and sustainability of family child care programs.⁷⁰

Designing a Model with Access and Equity at the Forefront

It is important that efforts intended to deepen the expertise of the infant / toddler workforce also produce highly qualified educators who reflect the racial, cultural, ethnic, and linguistic diversity of the children they educate. When educators and families share common languages and cultural understandings, they provide higher quality and more responsive care that promotes language, social-emotional, and identity development.^{71 72} While the current

early childhood educator workforce is, on average, more racially and ethnically diverse than the K-12 workforce, that diversity is concentrated in roles with fewer educational requirements and lower pay (e.g., assistants and family care providers vs. better compensated lead educators in center-based settings).⁷³ It is therefore critical to consider how the pipeline and pathways for new and existing infant / toddler educators can be designed to confront these disparities.

One critical approach to ensuring a workforce that is well-connected is to recruit and retain teachers from within the community educators are being prepared to serve.⁷⁴ The “Grow Your Own” (GYO) theory of educator preparation has emerged in response to the shortage of qualified diverse candidates for K-12 teacher positions

Early Childhood Grow Your Own Educator (“GYO”) Preparation Programs

The University of Illinois at Chicago Alternative Certification Program targets existing preschool teachers who hold a bachelor’s degree but who lack a Professional Educator License, and creates a viable pathway toward a teaching certification. To promote diversity, the program 1) applies a strengths based approach to admissions by prioritizing years of experience and bilingualism over GPA; 2) supports educators to obtain the observations and evaluations they need for the alternative certification process and ensures they could work full time while doing so; and 3) assigns each program participant a mentor to assist with wraparound supports such as time management.

The Chicago Commons Program, **Pathways for Parents**, is a Head Start program that recruits parents of children enrolled in the program to work alongside existing classroom teachers while they pursue coursework. The program supports parents as they navigate individual challenges they face as parents that might interfere with their ability to complete coursework, such as transportation, child care, cost of coursework, undocumented immigration status, previous student loan debt, etc. It has created a pipeline of educators who reflect the ethnic and racial diversity of the families the program serves.⁷⁵

and has some examples of success in the early childhood field. GYO approaches seek to recruit educators directly from local communities in hopes of simultaneously ameliorating teacher shortages and increasing diversity.

Reaching Family, Friend, and Neighbor Providers

A system designed to strengthen the quality of infant / toddler care must also incorporate strategies to reach sectors of the infant / toddler workforce that are not frequently engaged in training or other supports, like the one million family, friend, and neighbor providers who care for the majority of infants and toddlers from low-income families. Many family, friend, and neighbor providers don’t view themselves as educators and more than half have no more than a high school education.⁷⁶ Reaching this sector of the workforce is extremely challenging, but also critical if we aim to make a broad and lasting impact on the level of care infants and toddlers experience in this country. Family, friend, and neighbor care is the predominant type of care used by families working non-standard hours, such as evenings, overnights, and weekends. Scheduling formal trainings for family, friend, and neighbor providers who work non-standard hours is difficult and visiting or monitoring homes during child care hours is also challenging. Because family, friend, and

neighbor providers generally have a relationship to the family they are assisting, their needs are different than those of caregivers working in center-based or licensed family daycare programs. One study noted that “Family, friend, and neighbor providers generally know and want to help the parents of the children in their care, and thus often have very different motives for providing care than formal child care providers who often balance interest in children’s development with professional careers or business interests.” Traditional training and monitoring models

typically do not appeal to family, friend, and neighbor providers and research indicates it can sometimes have the reverse impact, causing more providers to go “underground,” deterring providers and the families that rely on them from enrolling in child care subsidies or other mechanisms that might trigger a formal licensing process.⁷⁷

One potential model for reaching family, friend, and neighbor providers is through home visiting from coaches with the same qualifications as those who coach the existing educators in the model previously described. Home visiting models offer a customized and flexible way to reach family, friend, and neighbor providers for one-on-one support within the provider’s regular care setting to improve provider-child interaction, enrich the care environment, and connect the families of the children in care with information and resources to support their child’s development at home. Drop-in playgroups at local libraries, community centers, or playgrounds is another potential strategy for reaching family, friend, and neighbor providers. These playgroups can offer examples of developmentally meaningful interactions and activities, as well as offer providers a chance to connect with each other, reduce feelings of isolation, and establish a community of support. These connections could also build a strategy for recruiting interested family, friend, and neighbor caregivers into formal professional learning programs and create a pathway for those providers interested in earning credentials and working in a setting that might possibly earn them higher wages. A recent report from Child Trends and the Foundation for Child Development calls for further exploration of home visiting as a promising vehicle for expanding access to professional learning for home-based care providers and as a strategy for improving care for many children in settings often left out of quality improvement initiatives.⁷⁸

The residency program models described in this paper could also be adapted for home visitors or to offer a talent pipeline that supports this critical sector of the workforce. Just as we describe in our existing educator model, competency-based coursework combined with the opportunity to practice under the guidance of a mentor or coach could serve to deepen the expertise of home visitors where states are ready to invest in credentialing and paying this sector of the workforce a living wage. Solutions should also be crafted to serve educators with degrees but who lack the knowledge and skills to effectively provide quality early learning experiences. Perhaps the most obvious example of this is educators with a BA who lack specialized early childhood coursework. As systems for defining required credentials are implemented across a state’s infant / toddler workforce to provide for programs like residencies, opportunities for ongoing professional learning or additional credits should be devised to meet the needs of this and similar groups and also qualify them for compensation reform.

A Robust System of Ongoing Professional Learning

To sustain and grow the impact made by residency programs, infant / toddler educators will require ongoing opportunities for high-quality professional learning following completion of the program. As a start, program graduates should have the opportunity to continue to meet with their peers in the form of a professional learning community that provides a self-sustaining extension of the advisory or cohort group in which educators come together to discuss experiences, problems, issues, and techniques. Ongoing support should also include opportunities to learn and grow through access to regular coaching from experienced infant / toddler educators. In many instances, this will require recruiting and training local coaches to ensure there is an adequate supply of skilled educators to support the continued growth of program graduates.

An ongoing support system will serve to address a significant gap as noted in *Transforming the Workforce*: “Many states have no well-defined, comprehensive system to ensure ongoing professional learning [for early childhood educators], nor do they have agreed-upon standards or approval systems to ensure the quality of those who provide professional learning activities.”⁷⁹ Even when professional learning opportunities are made available, they tend not to be high quality or effective. Across the country, early childhood educators indicate that they lack

professional learning opportunities that include key aspects of high-quality experiences, including: personalized professional learning plans, choice in terms of professional learning opportunities, a supervisor who meets regularly to discuss personal and professional growth, and sustained guidance from an experienced coach on how to implement learning and improve practice.^{80 81}

The practical challenges associated with the delivery of quality professional learning experiences for infant / toddler educators also need to be considered: ongoing opportunities for professional learning, like the ones described above, need to be built and adapted for local communities. Research shows that professional learning opportunities are rarely incorporated into an educator's paid work day and that most early childhood educators are expected to pursue professional learning opportunities during unpaid evening and weekend hours.⁸³ While local context will raise new questions to address, there are some widespread trends we can plan ahead to solve. For example, there is a lack of available substitute infant / toddler educators to provide coverage to allow educators adequate time to

Bank Street College's Birth to Three Model for Ongoing Coaching and Support

One example of a customized approach to professional learning for infant / toddler educators is Bank Street's community-based learning model, which meets practitioners where they are, both literally and figuratively. One demonstration project using this model offered a free five-month integrated program to caregivers and program leaders to help further their understanding of child development and strengthen their practice in working with families and caring for infants and toddlers. The program included on-site coaching visits (every other week) and coursework (offered in the evenings on weeks without a coaching visit) at a convenient location within the neighborhood. Using a strengths-based approach and the expertise and collective practical wisdom of Bank Street faculty along with community leaders, this initiative focused not only on supporting the professional learning of caregivers, but also helping them to obtain a Child Development Associate credential if they did not already have one.

Theory of Action:⁸²

Principles	Neighborhood-based Cohort Program	Outcomes	
Understanding how adults learn	Semester-long Program <ul style="list-style-type: none"> Four day-long workshops incorporating Bank Street content Leadership workshops Bi-weekly individualized coaching 	Caregiver Outcomes <ul style="list-style-type: none"> Improved knowledge and skills Site-based outcomes Improved quality of caregiving environments 	Child Outcomes <i>The necessary pre-conditions for success in school, particularly in literacy, including:</i> <ul style="list-style-type: none"> Social-emotional development Language development
Community-based approach adaptable to local context	Ongoing Community Learning Network: <ul style="list-style-type: none"> Twice annual workshops Bank Street's Infancy Institute 	Community Outcomes <ul style="list-style-type: none"> A network of caregivers supporting high-quality practice across the neighborhood 	

plan, reflect, and collaborate with other educators. For most home-based or family child care providers, taking time off to participate in professional learning means closing one's business and not getting paid. It will be important to incorporate plans to provide coverage so educators have paid time to debrief, reflect, plan, and collaborate with each other and with experienced educator coaches.

States and other localities must identify the necessary funding to ensure that graduates of residency programs have opportunities for ongoing professional learning following completion of the program. It will also be important to incorporate the provision of this professional learning into existing systems such as QRIS, licensing, or credential standards.

Program Development and Implementation

For an infant / toddler residency model to be effective, relevant coursework and experiences must be created by organizations that have deep expertise in infant / toddler education and development. Until an infant / toddler credential translates into higher paying jobs, higher education will be reticent to invest in building this capacity. While momentum is underway to help incentivize this investment—and Power to the Profession's recommendations for credentialing and licensing could be instrumental—broad change at the scale needed will take time and the needs are urgent. There are steps we can take to fill in the gaps now by leveraging the institutions with existing capacity to provide access to coursework for infant / toddler educators quickly, while engaging local partners to ensure that these courses come with connected supports, including in-person coaching where local



capacity exists. At the same time, a slower but worthy path towards broader higher education capacity building should be pursued where there is interest and readiness. Together, these strategies can support both our short- and long-term needs by building a more robust set of supports that will help reach the scale needed.

Capacity Within Higher Education

For the most part, higher education institutions have not invested in building programs tailored to prepare educators working with infants and toddlers because no meaningful market for those programs currently exists. Few or no credential requirements in most states

along with near-poverty wages means infant / toddler caregivers are largely left out of traditional early childhood higher education programs. The result of this disinvestment is also low capacity within most higher education institutions to teach infant / toddler focused courses. Reviews of state credentialing and certificate requirements consistently reveal a lack of focus on course content for educators preparing to work with infants and toddlers. Of the 28 states offering infant / toddler certificates, credentials, or endorsements in 2014, only half required more than one or two courses covering infant and toddler development and learning to earn the credential.⁸⁴ Additionally, field-based experiences are limited. In some states, a significant percentage of programs reported that students were not even offered the option of working with children under age three during their practicum or student teaching experiences (e.g., 30 percent of the state of Washington's bachelor's degree programs noted that working with infants and toddlers was not an option for their students). Further exacerbating these problems is a lack of faculty expertise with this age group. For example, less than 40 percent of early childhood education bachelor's degree faculty in Tennessee reported that their expertise included children birth to two years old.

Another issue related to higher education capacity pertains to what is known about the effective preparation of infant / toddler educators. To date, much of the research examining the effectiveness of educator preparation programs narrowly focuses on the quantity of formal education—whether more education or training makes a

The **Collaborative for Understanding the Pedagogy of Infant / toddler Development (CUPID)**, is a multi-disciplinary group of more than 60 scholars across 40 U.S. colleges and universities who have joined together in a Scholarship of Teaching and Learning effort to understand how to better support the professional needs of the infant/toddler workforce. One of the goals of CUPID is to make visible key issues faced by institutions of higher education in the U.S. in addressing the training of the infant / toddler work force. Challenges facing those in higher education include the U.S. policy context and the federal and state structures for supporting and credentialing the infant / toddler workforce. This work is made more challenging by the historical context of the field and by the changing views on the goals for early care and education, including the call for increased educational qualifications for teachers. As a consortium, CUPID members work collaboratively to systematically investigate the effects of its own college courses on the knowledge, attitudes, and skills of the adults whom they educate. CUPID has issued a set of competencies for the infant / toddler workforce which could serve as an anchor for coursework. CUPID might also support the implementation of infant / toddler residency programs through advisement, contributing to the development of coursework, or serving as a research consortium. Its member institutions could serve as anchor institutions, to build local capacity while supporting the implementation of residency programs.

difference—but does not systematically explore how BA or higher degrees with different foci compare to one another and/or contrast to other levels of education, such as the AA degree.⁸⁵ Additional research is needed to explore the relationship between program content and child outcomes to more fully understand the components of effective infant / toddler educator preparation.⁸⁶

While efforts are underway to attempt to address this gap, these efforts are nascent and sustainably building robust infant / toddler expertise into institutions of higher education across the country will take time. It is important to note that there are bright spots in higher education in terms of infant / toddler educator preparation that emphasize practicum-based learning. The University of Oklahoma and its Early Childhood Education Institute is one example.⁸⁷

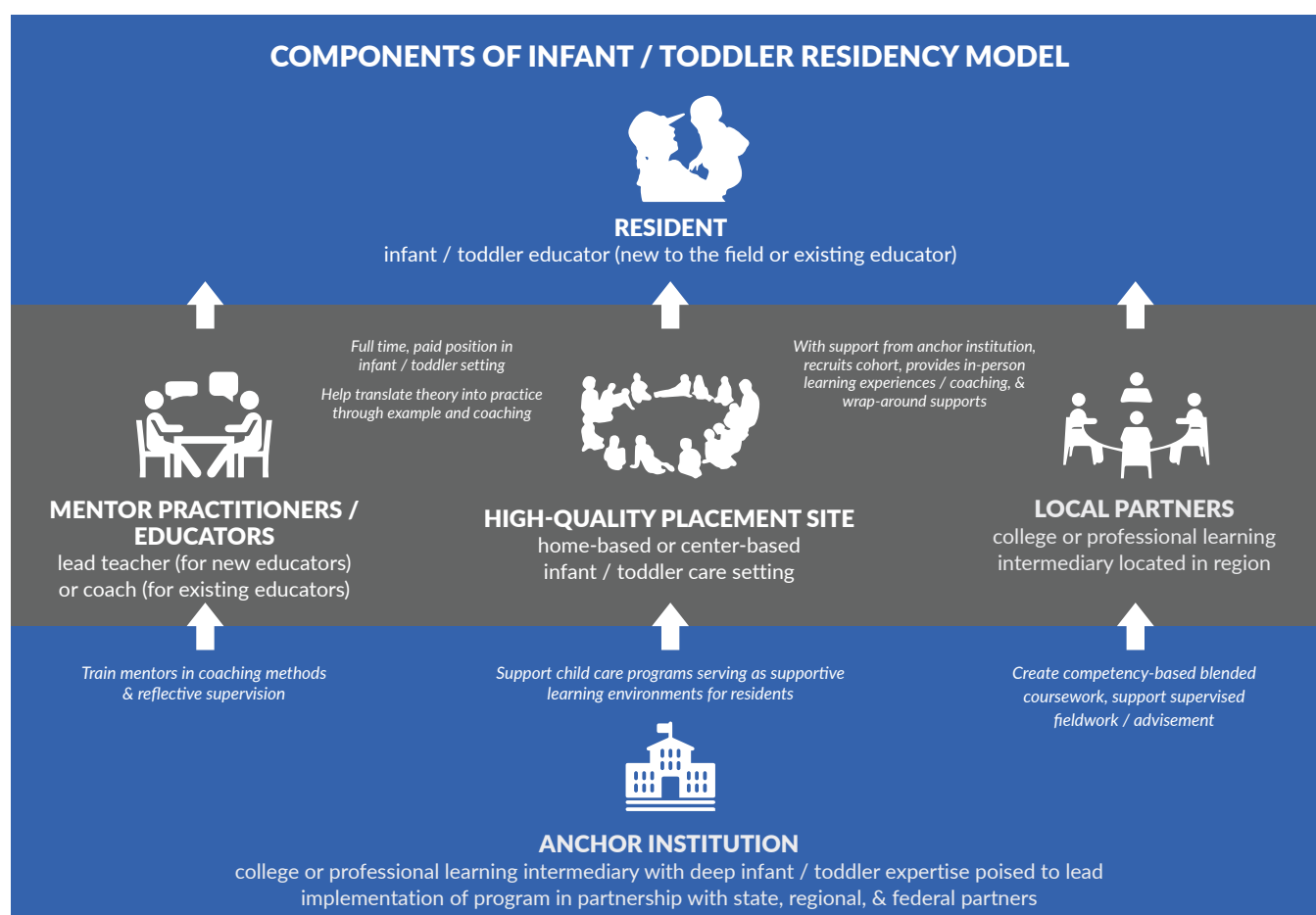
Another critical consideration and opportunity to build capacity within higher education is ensuring that degree programs are designed to recognize and build off of candidates' strengths. An important effort is underway in community colleges across the country to eliminate the need for remedial coursework, which research has shown does little to develop students' skills and is often diversionary: it is designed to prepare students for college-level coursework in the relevant subject, which research suggests students may never take.⁸⁸ The Center for the Analysis of Postsecondary Readiness (CAPR) at the Community College Research Center at Teachers College carries out research on innovative approaches to remedial assessment, placement, and instruction in collaboration with social policy research organization MDRC and scholars at Stanford, U.C. Davis, and Vanderbilt.⁸⁹ Promising practices such as offering high school transition courses in junior or senior year of high school, and increasing the number of transfer courses (college-level credit-bearing alternatives to remedial courses), and creating co-requisite courses (skill building courses offered at the same time as other courses or requirements) could strengthen the outcomes of these programs, reducing costs and the time it takes to earn post-secondary credentials.

Anchor Institutions With Broader Reach & Capacity

To move at the pace needed, organizations, including local colleges, universities, and also intermediaries with deep infant / toddler expertise, must be tapped to offer programs that can serve a broader set of providers by leveraging technology and also partnering with local organizations capable of providing related support. These

anchor institutions would design and develop competency-based coursework and curriculum that can serve as the basis for a broader set of program offerings. This would allow access to training to move faster and provide a more efficient path to scaling. Some (or all) coursework could be delivered through a blended learning model, allowing for broader reach through synchronous online learning. Anchor institutions could partner with local organizations (community colleges or intermediaries) to support a locally adapted version of the model and also offer help with recruiting a regional cohort of residents, delivering some in-person opportunities for learning and coaching where local infant / toddler expertise exists, and, importantly, designing a customized set of wrap-around supports to retain participants from local communities. While higher education institutions can play the role of an anchor institution, we also need to look at other organizations that may have as much or more infant / toddler expertise and experience, like professional development intermediaries including ZERO TO THREE and West Ed. This holds true on a local level too. In addition to local community colleges and nonprofits, high-capacity early childhood centers (including potential residency sites) could also offer support as local partners to help with recruitment, in-person coaching, and other wrap around supports.

Anchor institutions could partner with many local communities, spreading their expertise further faster. Importantly, this approach would enable states to work with the most well-qualified partners who are ready to move quickly to meet demand in creative ways. While a more detailed plan for scaling would need to be devised, one could imagine a set of five to 10 anchor institutions meeting needs nationally.



We offer three examples of potential anchor institutions poised to support local organizations

The University of Washington: EarlyEdU Alliance partners with state and federal agencies and philanthropic organizations to increase access and affordability for caregivers to obtain practice-based, relevant college degrees. To help early learning educators get the skills they need to succeed, the Early EdU Alliance has developed a complete suite of competency-based higher education courses built with an intentional teaching framework. These courses are free for faculty and are used by EarlyEdU Alliance partners in-person and online at colleges and universities across the country. The Early EdU Alliance partner institutions of higher education are also using the Coaching Companion, a video sharing and coaching feedback app, to give students individualized support for improving their teaching practices. Led by Dr. Gail Joseph and colleagues at the University of Washington, the Early EdU Alliance has worked with 126 institutions of higher education to implement its courses and technology since 2015.⁹⁰

ZERO TO THREE has created a suite of professional development products aligned to their *Critical Competencies for Infant-Toddler Educators* to help educators build the essential knowledge and skills they need to be most effective. The suite includes online, onsite, and hybrid learning opportunities, featuring considerations for multi-language learners and children from high-need populations including: a Critical Competencies Model eBook, Online and In-person Courses, Trainer Certification, Faculty Institutes, Coaching Program, Reflection Tool, and Technical Assistance.⁹¹

WestEd is a nonpartisan, nonprofit research, development, and service agency working with educational organizations and other communities throughout the United States and abroad. WestEd aims to improve educational and other important outcomes for children, youth, and adults. Through its research-informed professional development, WestEd aims to strengthen leadership, knowledge, and skills for those engaged in early learning and care (birth to 5), pre-K–16 education, and related fields.⁹²

One example of a model that pairs an anchor institution with local nonprofits is **PelotonU**, which offers opportunities for high-quality, competency-based online learning from a remote university partner and combines it with wrap-around supports for post-traditional students from a locally based partner nonprofit agency. The university partner offers flexibly paced coursework, project-based assessments, employer-aligned curriculum, and affordable tuition. Students receive wrap around supports from the local partner that include:

- **Coaching:** Pairing students with a trained educator who meets with them in-person each week to provide encouragement and accountability.
- **Community:** Operating study spaces on nights and weekends so students have a space to focus on school without the demands of home or work to distract them. While there, students meet with tutors, use computers and other academic resources, and study alongside peers.
- **Care:** Mitigating common obstacles by offering specific academic resources and through partnerships with social service providers to address secondary barriers like child care, financial aid, or access to mental health counseling.⁹³

THE PATH FORWARD: COMPENSATION

Any new initiatives to reform the quality of infant / toddler child care must be coupled with real commitments to addressing equitable pay and benefits for educators that are planned for from the outset of program design and development. The residency programs we described in the previous section should be paired with new policies to do this, beginning with a boost to the living wage for the field and working towards the ultimate goal of achieving pay parity and comparable benefit packages with similarly credentialed elementary school educators. Professional training opportunities can quickly become a financial burden on educators or be passed along as another cost to families. While efforts to professionalize the field through improved standards, licensing, and degrees are a critical part of the long-term solution, we cannot begin with only demanding more of the women working in these conditions unless and until we commit to offering them real change.

Nearly half of the early childhood educator workforce currently relies on public assistance.⁹⁴ A 2018 study found that 86 percent of infant and toddler teachers make less than \$15 an hour.⁹⁵ Compensation for early childhood educators has increased by 1 percent in the past 25 years and the average turnover rate in child care settings is 29 percent, three times higher than that of elementary school teachers.^{96 97}

The results are predictable. Compensation for infant / toddler educators hovers at the poverty level, contributes to feelings of anxiety and stress that impacts educators' abilities to deliver the kinds of developmentally meaningful interactions associated with high-quality care, and is the primary cause of high turnover in infant / toddler care settings. As Marcy Whitebook, Founder and Co-Director of the Center for the Study of Child Care Employment at UC Berkeley states, "When people are worried about food, you can't ask them to be able to truly attend to the needs of infants and toddlers.... We want early childhood educators to ameliorate poverty while living in it themselves."⁹⁸

At every level of educational attainment, there is a wage penalty for teachers working exclusively with infants and toddlers, compared to those working with children aged three to five. The magnitude of the difference increases at higher levels of teacher educational attainment. Even when controlling for educational attainment, an early educator working with infants and toddlers still earns \$2.00 per hour less than an educator who works with children aged three to five, not yet in kindergarten.⁹⁹

Data also indicate that educators of color in the infant / toddler workforce are clustered primarily in the lower-wage jobs, such as aides and assistants, within this already low wage field. "Nationally, on average, African American female educators working full time in settings that serve children ages 0–5 make 84 cents for every \$1 earned by their white counterparts. White teachers working full time with this same age group make an average of \$13.86 per hour. This 16 percent gap means an African American teacher would make \$366 less per month and \$4,395 less per year, on average."¹⁰⁰

Changing these trends is not simple or inexpensive. However, we can learn a lot from the progress made for pay parity with similarly credentialed elementary school educators as part of broader pre-K initiatives and also from nascent efforts to increase wages throughout state-based programs for early childhood.

Pre-K Examples of Compensation Reform

Publicly funded pre-K programs appear to be an area gaining momentum in addressing the poor compensation early childhood educators have historically received. The Center for the Study of Child Care Employment and the National Institute for Early Education Research released a report that profiles the progress five states (Alabama, Georgia, New Jersey, Oregon, and West Virginia) and two cities (San Antonio and New York City) have made toward compensation parity or, in the case of San Antonio, beyond parity for public pre-K teachers.

The report outlines how “some states and cities have moved toward parity by establishing salary requirements for their pre-K programs right from the start, particularly newer programs, such as Pre-K 4 San Antonio and Oregon Preschool Promise, while others have recently introduced requirements or built on previous requirements over time, as seen in Alabama and Georgia. Most of the states and cities examined have taken incremental steps toward full compensation parity, either by starting with their pre-K teachers in public schools or by starting with one component of compensation, such as salary rather than benefits. Some cities have forged ahead, with or without state support, and have the potential to serve as models to other local communities as well as the state. A key strategy for states and localities in advocating for pre-K teacher compensation parity has been to link teacher compensation with the provision of a high-quality learning environment for children. In their rationales for taking action on disparities in pre-K salaries, administrators have pointed to data on turnover in their states and the need to recruit and retain skilled educators. Others have framed the issue around a commitment to equity, not only for children, but also for the teachers themselves. While there is still much to learn about the impact of these policies, administrators have already pointed to some unexpected benefits, including kindergarten teachers becoming interested in working in pre-kindergarten classrooms, rather than simply vice versa, and increased discussion about improved compensation for early educators outside of pre-K, including infant / toddler teachers.”¹⁰¹

Some financial incentives for infant / toddler educators do exist, like salary supplements and tax credits, which provide some financial relief to a small number of infant / toddler educators. However, as noted in *Transforming the Financing of Early Care and Education*, the overall pay is still low and the temporary nature of the supplements does not create the predictable and steady salaries necessary for recruiting and retaining a highly qualified workforce. In a field with a largely non-unionized workforce and a substantial for-profit sector, it is unlikely that the labor market for early childhood educators will adjust upward with just a few targeted mechanisms that supplement compensation in specific programs—not without some standards or guidelines related to the distribution of funds to the workforce.¹⁰²



Sustainable sources of public funding must be identified and generated to specifically fund increased compensation and the provision of comprehensive benefits for infant / toddler educators. The high cost of care and the burden it has placed on families makes it clear that a largely market-based system has not worked. **We need to reframe access to quality child care as a public good so funding will follow.** To get to the level of resource needed, we must pursue multiple sources of revenue (local, state, and federal) and explore creative solutions. New funding

must be issued directly to providers with the explicit purpose of increasing compensation and access to benefits—either through increased and restructured subsidy rates that guarantee salary increases or a supplemental funding stream. Revenue can also be applied to remove some of the administrative, real estate, or other operating expenses (such as utilities) from individual providers so that child care programs can dedicate more of their funds to staff compensation. This could happen by dedicating public or private funds to offset these costs, developing shared service models, or providing tax credits or free real estate. The charter school movement has been able to advance thanks to a similar model for developing facilities (such as Civic Builders) in which a combination of public and private philanthropic dollars fund facility development, enabling programs to occupy space at no or very low cost.



Whatever funding mechanisms are applied to increase compensation and provide benefits, they should be designed to reach not only educators working in center-based settings, but also educators working or running home-based child care programs as well. These programs might serve fewer children and will likely have a different cost to provide care. These considerations must be taken into account when developing a plan for increased compensation and access to comprehensive benefits.

Finally, it is important to note that program directors or administrators frequently face similar challenges in terms of low compensation and lack of benefits. While this paper does not outline a plan to better support and compensate program directors, it is critical that states and other localities considering the compensation and benefits of infant / toddler educators develop plans to also increase compensation for program directors. Implementation of the recommendations in this paper could lead to pay for educators that is considerably higher than program directors currently earn, so policies that take a broader set of roles into account is essential.

THE PATH FORWARD: STRENGTHENING SYSTEMS

Building a System of Residency Models

The opportunities for sustained clinical practice described in this paper are ones that we believe all infant / toddler educators should have access to as part of a system of professional learning experiences. To achieve this goal, we must prove what is possible when infant / toddler educators have access to these kinds of learning opportunities that lead to increased compensation. While the path toward implementation might vary across states and other localities, we can begin with three to four states, regions, or large cities that can serve as “proof points” as a critical first step in understanding the systems, structures, and resources that must be created or reformed to achieve our vision. It will also be important that these proof points represent a range of communities—large city, rural, and suburban—to fully understand how implementation will vary across different localities. The states or regions poised to develop these early adapter models could include those that have demonstrated a commitment to developing organizations and structures that can plan, implement, and maintain a strong system of professional learning for infant / toddler educators. This might include areas that have prioritized the infant / toddler field within government leadership (strong systems that define quality infant / toddler learning experiences or statewide office of early childhood with deep infant / toddler expertise), identified new revenue streams to expand access to high-quality early learning experiences, have strong partnership institutions or a willingness among partnership institutions to work within the region, or shown a demonstrated commitment to infant / toddler workforce development through scholarships, compensation reform, licensure or credential requirements, or the establishment of a professional governing body.

In addition to states, regions, or large cities, the Early Head Start Child Care Partnership Program could be considered as a possible “early adopter” or proof point. Created by Congress in 2014, the Early Head Start Child Care Partnerships (EHS-CCP) program is an attempt to expand access to high-quality infant and toddler care for low-income families. Head Start programs partner with local child care programs, that agree to meet Head Start Program Performance Standards and, in exchange, the child care partners receive “additional funds and a rich array of resources, coaching, and technical assistance to improve the quality of their services. The goal is to increase per-child funding for infants and toddlers in child care programs to a level commensurate with per-child funding in Early Head Start.”¹⁰³ The federal government could consider developing a residency model for infant / toddler educators through its EHS-CCPs. Over time, EHS-CCP funding could increase to enable Head Start to partner with more child care programs throughout the country, increasing the number of infant / toddler residency programs.

A robust research agenda should be developed to refine the residency program models over time as well as serve as a valuable resource in their expansion. After the three to four proof points have been implemented and studied, their effects can serve as the basis for a national campaign targeted at strengthening the systems and funding that exist for both compensation and professional learning on a national scale. Once we can show state leaders what is possible for infants, toddlers, and their families when we invest in these reforms, we will have the platform needed to serve as a catalyst for national change.

Developing System Capacity For Implementation

At the outset of the development of residency programs, related structures that govern and support child care program quality and professional learning must be aligned to ensure both coherence and sustainability. Over time, early childhood programs have been forced to function within a fragmented, incoherent system due to both years

of disinvestment and to historical, deep-seated conflict around core values.¹⁰⁴ Moving forward, policy governing early childhood programs must be designed to better reflect what we know about high-quality early learning experiences: they are grounded in play and relationship-based interactions; promote equity; and are facilitated by educators who take a strength- and inquiry-based approach to working with children, adults, and families. It will be challenging to ensure that this approach is adopted widely and systematically as early childhood systems within states and other localities have developed at different speeds and with different priorities and because ultimately what these systems will look like will vary based on local context. However, based on our research, we see several important trends worthy of consideration.

A process of collaborative assessment with key leaders in government, higher education, and other organizations would help to surface the right entry points and identify where capacity can be built to effectively implement and sustain residency programs. This might include giving states or other localities the resources (e.g., staff, funding) they need to build capacity, coupled with a series of technical assistance supports to prepare for implementation, such as those outlined below.

Assessment and Capacity-Building

- **High-Quality Residency Placement Sites:** Ensuring there are an adequate number of high-quality placement sites poised to serve as supportive learning environments for residents is an essential first step for laying the foundation needed to grow a successful program. Implementation planning could begin with a qualitative assessment of child care program quality and, where necessary, program capacity should be strengthened through site-level coaching before residency programs begin. Program leaders will require support developing their programs into supportive learning environments for adult educators—building skills and capacities such as reflective supervision, coaching, and the ability to support the continuous growth and learning for the educators they employ. Companion programs could be developed for program leaders that include leadership coaching and skills development for facilitating professional learning communities that offer opportunities for collaboration and communal learning.
- **Systems That Define Quality:** The various state-level systems designed to define and support quality early learning experiences for infants and toddlers must be aligned with the vision for high-quality care, adult learning, and standards for compensation, including Quality Rating and Improvement Systems (QRIS) and licensing standards. Ensuring consistency and alignment between what participants experience in the program and the tools intended to define and measure quality will be essential to ensuring the vision set forth in this paper permeates all layers of the system and offers coherence and sustainability. While there are other pathways toward compensation reform, one way to institutionalize increases in compensation is by including increased compensation in both QRIS and program licensing standards.
- **Increased Funding:** States and other localities will likely need support exploring and identifying existing sustainable funding streams that can be applied to develop and implement the program elements and sustainable approaches to compensation reform. While increased investment through federal resources is critical, states and other localities will need to identify where there continue to be gaps in funding and develop a strategy to raise revenue to fill those gaps. For example, in most states the child care subsidy rate is far below the true cost of care (even at current compensation levels). If the goal of pay parity with public elementary school teachers is going to be achieved, states will have to increase subsidy rates. With support, state and local governments can identify politically viable revenue generation models that can be used to fund the full vision for reform outlined in this paper. (Examples of how this can be done are outlined in more detail in Section VI of

this paper.) Developing shared services models (sharing staff, training delivery, or administrative responsibilities across several programs) might also help generate and free up resources that can be devoted to funding residency programs and increasing infant / toddler educator compensation.

- **Financing Mechanisms:** In addition to raising the revenue, the manner in which funding is allocated to programs might require revision. States and other localities might consider innovations like adopting programmatic or contracted funding models (similar to the way the federal government administers Head Start and Early Head Start) in which stable funding is allocated directly to programs that meet certain criteria, including compensation benchmarks for educators.
- **Strong Partner Organizations:** States and other localities will require strong partners (colleges, universities, and intermediaries with deep infant / toddler expertise) to provide supervised fieldwork and advisement, identify a universally adopted system of competencies, adapt curriculum, hire faculty, create in-person and blended / online programs, develop a program recruitment and admissions strategy that emphasizes equity and access, and deliver robust wrap-around supports and the flexible program designs needed to recruit and retain a diverse pool of infant / toddler educator residents. It is also critical that residency programs offer stackable credits and sequencing of coursework for seamless articulation between credential programs. Currently, few, if any, reciprocal agreements among higher education institutions exist. While several strong partner organizations exist, greater capacity will be required for these types of residency models to have a broad national impact.

Designing Policy to Support Sustainability and Impact

- **Credentialing:** Many states are currently considering, or are in the process of implementing, credential requirements for infant / toddler educators. As outlined earlier in this paper, these requirements often prioritize an emphasis on seat time or the type of degree required instead of defining the types of learning experiences most effective in growing an educator's practice. Practice-based learning, like the residency model we describe, could be infused into state-level policy and become the standard for earning credentials as an infant / toddler educator. As Power to the Profession advocates for state reform and works to create a nationally recognized system of early childhood educator credentials, there is an opportunity to include practicum-based pathways as a key strategy for reform.
- **Coherence and Coordination Across Birth Through Eight Continuum:** Infant / toddler residency programs should be rooted in a coherent early childhood system that recognizes and provides support for children from birth through age eight. Several states have created state-wide offices that oversee policies affecting children along this continuum, which can provide for stronger continuity of care and better outcomes. Some states will require support to ensure that programs and policies that impact children and their families through this period of early childhood complement and build on each other.

Generating Necessary Support for Scale and Broad Impact

- **Public Will Campaign:** States and other localities will require support in generating the public and political will to prioritize the work of educating infants and toddlers through public investment in professional learning models like the one we describe. This might include advocacy and public relations campaigns, as well as funding and disseminating research. The significant investment of public resources required to fund these programs in tandem with sustained increases in compensation will require broad commitment from an engaged and mobilized base.



Organizations and private philanthropies are stepping in to build state capacity and generate the public and political will to adequately invest in birth to three education.

The Pritzker Children's Initiative (PCI), an initiative of the J.B. and M.K. Pritzker Family Foundation is investing in and supporting solutions in early childhood development from prenatal to age three, with a goal of every child reaching kindergarten ready to learn. Specifically, it is PCI's goal to expand high-quality services nationally to at least one million low-income families with children prenatal to age three by 2023.

To help achieve this ambitious goal, PCI launched the National Collaborative for Infants and Toddlers (NCIT), which brings together national partners, early childhood leaders, philanthropy, policymakers, and practitioners inside and outside state and local government to create and strengthen promising policies and programs and share what works so that more states and communities can support the healthy development of our youngest children. NCIT's approach is to support national, state, and local programs that: 1) expand access to high-quality and affordable child care and learning environments; 2) increase the number of families connected to essential health, development, and social-emotional services for infants, toddlers, and their families.

PCI's multi-pronged strategy to expand prenatal to age three programs and services includes:

- The NCIT solutions center (www.thenict.org), an action-oriented resource where policymakers, influencers, and early childhood leaders can access the latest information and tools to inform development of impactful prenatal-to-age-three policies in states, communities, and across the country
- State and community grants focused on coalition building, policy development, and action planning to expand statewide access to high-quality programs designed to support children's healthy development and build a strong foundation for learning
- Technical assistance and resources to give state and community leaders what they need to craft, advance, and scale policies and programs to ensure equitable access to and participation in high-quality services
- Momentum building strategies designed to increase engagement and activation of key stakeholders to support greater investments in infants and toddlers at the community, state, and national level
- Innovation and scaling of new models for high-quality prenatal to age three services with promising or proven impact on healthy development and learning¹⁰⁵
- **ZERO TO THREE's *Think Babies* Campaign**
ZERO TO THREE created the *Think Babies* campaign to make the potential of every baby our national priority. *Think Babies* prioritizes four core policy areas to support babies and their families.
 - **Quality, Affordable Child Care:** Policies that help improve the quality and availability of child care options for children ages birth to three and help families who struggle to afford quality care
 - **Time for Parents to Bond With Their Babies:** Policies that expand paid time off options for parents who work and allow them the time they need to bond with their babies during those critical early months
 - **Healthy Emotional Development:** Policies that provide parents with guidance, resources, services, and support that help them nurture their babies and set them up for a healthy life
 - **Strong Physical Health and Nutrition:** Policies that ensure families have consistent access to quality health services and nutrition support programs for infants, toddlers, and pregnant women¹⁰⁶

Deepening Leadership Expertise

These systems-level reforms will require leadership from policymakers who deeply understand both child and adult development and how to foster meaningful learning experiences. Currently, many infant / toddler programs suffer from a lack of strong **policy leaders** who can manage large-scale systems issues while ensuring that educators have the high-quality training and support they need. Policy decisions that impact child care centers and classrooms are sometimes made by leaders in district and state education offices who have little background in the birth-to-three field. The result is that many well-intentioned initiatives fail and, in doing so, often disrupt positive work happening to support children and their educators. To build this capacity, programs need to be developed to cultivate an understanding of learner-centered instruction with a focus on educational equity at the leadership level.

Engaging leaders in hands-on learning experiences to cultivate these leadership and policy skills could support policy leaders to consider and understand the theory and practice of facilitating developmentally meaningful learning experiences for infants, toddlers, and families, creating inclusive learning environments for all children, encouraging trauma-informed care, working with multilingual learners, and addressing explicit and implicit biases and their impact on children and families.

Leadership development programs focused on management, leadership, and policy skills should also include opportunities to:

- Learn and practice systems thinking and analysis
- Explore ways to build coalitions between stakeholders who share similar beliefs, but may have different interests
- Understand political mapping to engage more effectively in policy processes and learning how to position oneself in that context
- Identify and build skills needed to lead change management efforts
- Understand how key educational policy decisions—e.g., educator preparation, professional development, and investments in early learning—impact communities, intersect with the developmental needs of children, and support culturally responsive learning environments
- Develop robust project management and communication skills to ensure policy initiatives are well-planned, effectively executed, and responsive to educator and community feedback
- Consider how to support the development of equitable practices, systems, and structures through policy that embraces a vision for social justice

Leaders with deep knowledge of child development and pedagogy will then have the tools and strategies to advocate for systemic changes that can support both the residency program as well as the systems reform needed to support and sustain its impact.

Funding Implementation

The private sector—philanthropy and possibly even businesses and corporations—could play an instrumental role in funding demonstration programs that can serve as “proof points” for these ideas, as well as the related research and communications strategies that accompany them. Once tested, residency models could be funded through a combination of funding streams from the federal, state, and local level. However, at scale and when merged with bold efforts to address compensation reform, these programs will require significant resources and will need to depend on a mix of funding at all levels—increased federal funding combined with customized new solutions at the state and local level. Beginning to identify pathways toward these funding vehicles and strategies at all levels, including new and innovative solutions, will be a key component of any pilot effort.

One example of a promising creative solution that surfaced from our research involves merging early childhood funding with K-12 education funding formulas. While we are not recommending that districts house infant / toddler programs in elementary schools, they could have responsibility for funding and supporting a system of early care and education in communities that families can opt into if they choose. This change would move early childhood into an existing system that—while not perfect—has experience supporting educators as professionals through hiring practices that require relevant pre-service training, pay teachers according to collectively bargained salaries with benefits, and largely value the need for professional development, planning time, and other workplace benefits. Over time, this shift would change the narrative and move Americans closer to understanding early childhood as a public good, just as we do with K-12 education. Like any systems reform idea, this idea would need to be further tested, vetted, and considered by communities willing to try something new.

To help systems leaders and policymakers estimate costs and feasibility of implementation, we developed a cost model that offers an example of the residency program implementation and compensation reform. Because cost drivers, such as costs of living, vary significantly at a local level, we selected one place in which to develop a model: New Jersey. We chose this state both because data was accessible and market costs were relatively high, which helps to ensure our model does not underestimate costs. For the purpose of this example, we also made specific assumptions about policy and program design. We estimated the costs of a residency program where participants are employed full time while working toward a BA degree. The initial 60 credits of coursework will be at a community college and the remaining 60 credits at a state university.^{107 108} (A complete breakdown of the cost model, as well as an outline of the specific questions communities will need to ask to develop a locally relevant cost and program model, are outlined in detail in Appendices A & B).

Using these assumptions, we estimate the cost of a residency program culminating in a bachelor's degree would be approximately \$25,000 per educator after existing federal and state aid packages and scholarships are applied. These costs include not only coursework, but also the costs of coaching, site support, and salaries for up to a third of participants for whom paid positions in high-quality sites may be unavailable. In Appendix A, we propose one plan to develop and ramp up such a program over time. At scale, an intensive residency program that would graduate approximately 10 percent of lead teachers in licensed, subsidized, infant / toddler childcare settings every year would cost an estimated \$59 million per year, net of existing federal and state scholarships.¹⁰⁹

In keeping with our recommendations, we propose that such a program be rolled out in parallel with comprehensive compensation reform, starting with a bump in all salaries to enable all educators to earn a living wage and then a plan of progressive raises for graduates that move toward pay parity with similarly credentialed teachers in elementary school. Using these assumptions, our model would offer graduates of a residency with a BA up to \$66,697 (parity with kindergarten teachers). Halfway through the program, residents with an AA could earn \$45,020. To lift all infant / toddler educators to a living wage, before credentials are earned, salaries would need to be at least \$28,949, which represents a 60 percent increase on average from current wages. The state of New Jersey is already well on its way to this living wage target, having enacted a law to raise the state minimum wage to \$15 per hour by 2024 (which equates to approximately \$31,200 per year). This initial phase—lifting all educators to a living wage—would cost approximately \$444 million annually.¹¹⁰ At scale, this tiered compensation plan in which infant / toddler educators receive compensation parity with similarly credentialed elementary school teachers, when combined with comprehensive benefits¹¹¹, will cost an incremental \$1.4 billion per year. While a significant investment, these costs represent just approximately 0.23 percent of New Jersey's gross domestic product (GDP) or 4.8 percent of total spending on public elementary and secondary education.¹¹² While a large and meaningful increase in income to New Jersey's infant / toddler educators, this model shows that such compensation reform is not outside of a state's ability to pay, should the political will exist to do so.

We estimate that at a national scale, the cost of the residency program would be \$2.2 billion a year and comprehensive compensation reform would cost \$40.2 billion a year, bringing the total cost of our recommendations to \$42.2 billion per year.¹¹³ These estimates build from the data compiled for the New Jersey cost model and make the same assumptions about program design, which may need to be adjusted for local context. But because of the high cost of living in New Jersey we are confident this is a fair estimate. It is also critical to note that both the national and the New Jersey cost estimates are based on the size of the current paid workforce and does not account for the larger workforce that would be required to accommodate the increase in access to child care that American families urgently need. This national cost estimate also does not take into account other aspects of providing for high quality care that are included in the National Academy of Sciences *Transforming the Financing* report such as the implementation of a sliding scale payment system for families to increase access, nationally recognized child to staff ratios, and the development of a robust system of quality assurance and improvement. That report estimates the costs for a comprehensive system of high quality care for children birth through age 5 at \$66 billion to \$110 billion annually. Our estimates are not intended to supplant those more comprehensive figures, but rather to elevate what we believe is critical at the core of this broader reform agenda, quality professional learning needed for real change, and importantly full pay parity with similarly credentialed elementary school educators.

Below we describe examples of funding strategies that can be used to pay for compensation reform and residency programs for infant/ toddler educators. These strategies incorporate ways to re-apply existing resources, as well as strategies being piloted in communities across the country to generate new funding vehicles. One promising option is experimenting with alternative vehicles for funding quality child care, like programmatic funding or other forms of contracting (in which steady funding is granted to the program instead of varying based on per child subsidy rates), that may open up pathways to better systems for both broadening access and funding the real cost of care including compensation. Communities will also need to identify the right connected policy levers, a mix of incentives and requirements, to build demand for enrolling residents. One of the many benefits to pairing the rollout of a residency program with meaningful increases in compensation is it serves as an incentive for enrollment in residency programs. States that have simply set deadlines for earning degrees have struggled to meet targets. For example, Connecticut passed legislation to require a BA for all lead educators serving any combination of infants through preschoolers and has extended the timeline for when this policy takes effect numerous times.¹¹⁴

Federal Funding

Existing funding streams at the federal level could be applied to implement infant / toddler residency models. It is important to note, however, that despite recent increases in federal funding for child care these existing revenue streams are not currently funded at a sufficient level to ensure broad access to high-quality, affordable child care for all American families. Currently, child care subsidies only cover the average cost of care for an infant in three states—Hawaii, Indiana, and South Dakota.¹¹⁵ We acknowledge that the reallocation of federal funding streams to fund new residency programs is redistributing money in an under-resourced system. In order to sustain adequate funding for residency programs on an ongoing basis and to reach broad national impact over time, these funding streams will have to be expanded and combined with additional revenue sources. Flexibility in how resources are used throughout federal funding programs will also provide opportunities for creativity. States and local governments may need to identify creative solutions to fully fund these programs and policy changes at scale.

There are several existing federal funding streams that could be applied and expanded to develop infant / toddler residency programs, including the Child Care Development Block Grant (CCDBG), Early Head Start Child Care Partnerships (EHS-CCP), U.S. Department of Labor Registered Apprenticeship Programs through the Workforce Innovation and Opportunity Act (WIOA), and the Higher Education Act (HEA). A more detailed description of these funding sources and how they can be applied is included in Appendix C.

State Funding

States can begin by looking carefully at existing funding to identify ways to leverage the resources they currently have to advance these reform ideas. One promising option is to examine subsidy rates and look for alternatives for funding child care programs that provide a stronger pathway to compensation reform. Vouchers are attractive because they offer a pathway to strong parental choice, but they do not currently fund the real cost of quality and they create instability in small child care programs that cannot withstand the ebbs and flows of enrollment. Because of these issues and the overall lack of resources in the system—even when subsidy rates are increased—it is rare to see increases from voucher programs translate to compensation improvements or investment in meaningful professional learning. Experimenting with alternative vehicles for funding quality child care, like programmatic funding or other forms of contracting (in which steady funding is granted to the program instead of varying based on per-child subsidy rates), may open up pathways to better systems for both broadening access and funding the real cost of care.

In addition to these strategies, states that are serious about reform will need to identify mechanisms for generating additional revenue to fully fund the changes that are needed. Some states have recently taken encouraging steps to identify new revenue streams to increase access to high-quality, affordable child care. Importantly, both states and cities (outlined in the next section) have taken steps to identify ways of generating revenue without directly placing the burden on the individuals most in need of the services the revenue is intended to fund by raising revenue through corporate, business, or sales taxes. Some states have also established “special district governments,” also known as “special taxing districts” or “special purpose districts.” These independent, governmental structures are given authority to levy taxes within a specific geographic area for a specific purpose, including early care and education.



Funding Our Future: Generating State and Local Tax Revenue for Quality Early Care and Education, a recently published collaboration among the BUILD Initiative, Center for American Progress, Children’s Funding Project, University of Maryland, and the Institute of Taxation and Economic Policy, offers a comprehensive summary of existing state and local revenue streams dedicated to funding early childhood education initiatives as well as creative “next generation” ideas for consideration. Examples of state-level early childhood education revenue streams pulled from this paper are included in Appendix D.

Local Funding

Recently, there has been some exciting momentum in large cities to raise funds to address the gap in access to high-quality child care. These initiatives focus on increasing the supply of affordable infant / toddler child care spaces, as well as addressing critical aspects to improve program quality, such as increasing compensation and increasing access to high-quality professional learning. Innovative strategies to raise local revenue include local tax levies and local initiatives funded through general operating funds. A more detailed description of these strategies and the local regions implementing them is included in Appendix E.

IN CLOSING: GENERATING PUBLIC WILL

The reforms outlined in this paper will require significant public resources and a shift in the way we think about the care of infants and toddlers from a personal responsibility to a public good. Research on brain science has started to generate momentum for increased public investment in infants, toddlers, and their families. In the quest for quality care, systems need to do more than create new requirements for programs and caregivers. A serious investment in workforce development is essential to support the learning infant / toddler educators need in order to effectively do the complex work of fostering infant / toddler development and must include robust support for existing educators and those entering the field. This includes paying close attention to the *design and delivery* of professional learning and planning *from the outset* for systems reform that increases compensation, provides comprehensive benefits, and creates greater coherence. This comprehensive approach is our best bet for ensuring infants and toddlers benefit from the early learning experiences we know make the biggest difference in their development.

Generating public and political will is essential to shoring up the financial and political support necessary to achieve this bold vision. The Power to the Profession initiative is one example of a landmark coordinated effort within the field to advance public will for real change. As states, cities, and other institutions capitalize on this momentum, we hope the vision we have set forth in this paper provides a useful road map for investing differently in the development of infant / toddler educators and the accompanying changes in credentialing and licensing requirements that move toward the north star of reform centered on parity for infant toddler educators with elementary school teachers.

Pew Pre-K Initiative

In 2001, Pew developed a seven-to-10-year plan to seek approval of policies for universal, high-quality early education in four to six states, as well as increased federal funding to support it. Pew's strategy was to develop and disseminate compelling research and to advocate for changes at the national level and within states. It committed more than \$104 million over a 10-year period. A recent evaluation of these efforts found that Pew's investment was decisive in expanding pre-kindergarten education across the country, increasing enrollment, and improving program quality.¹¹⁶

However, to fully scale these reforms, public campaigns will be needed. Once several localities adopt changes aligned with the recommendations in this paper, evidence demonstrating what works in practice can be used to strengthen advocacy efforts. Eventually, we will gain the momentum to advocate for the kind of quality infant and toddler care that Americans can embrace as a public necessity, just as we do for K-12 education. The campaign to expand access to universal pre-kindergarten spearheaded by Pew Charitable Trust, serves as an important example of how a few states and cities can serve as catalysts for national change.

While bright spots and promising practices emerged from our research as examples from

which to draw to advance this goal, few provided the comprehensive, multi-pronged approach we think will yield the most promising results. As policy and systems leaders consider ways to advance our recommendations, we urge innovative and bold thinking so we can see what is really possible. As a field, we need to generate new ways of working so we can identify the right root causes and map new pathways to solving the issues families face. In doing so, we can bring stronger coherence to the decentralized yet interdependent systems that currently impact the field.

Technical assistance will be needed to support states, cities, and other institutions as they build the capacity they need to plan for successful implementation and sustainability of these approaches. First, they will need to identify funding for programs and compensation increases with support from experts in financing. They will then need to build the capacity for implementation through the development of high-quality placement sites and partnerships with organizations to recruit and offer coaching to participants. To accelerate progress and meet the urgent needs that already exist, anchor institutions with existing infant / toddler expertise should be tapped to build a core set of curriculum resources, offer blended and online learning courses, train local coaches, and provide a range of other technical assistance needed to help communities operate programs. States will also need to begin the process of aligning systems that define quality, provide ongoing professional learning, and build pipelines for developing the leaders needed to manage expanded investments in infant / toddler care. With deliberate, careful execution alongside innovative and bold thinking, a comprehensive approach to workforce development can have a profound impact on early learning experiences.



All infants, toddlers, and educators deserve a better chance to grow. Bank Street has a long history of effectively supporting infants, toddlers, and families through our Graduate School of Education and our children's programs. We feel both responsibility and excitement to work alongside policymakers, researchers, advocates, and practitioners in the field advocating for stronger support for early childhood educators. We humbly offer our support as both another voice and a partner working with states and other organizations to help implement the kinds of professional learning experiences and connected systems reform we know can make a difference. Together, we can work to help every baby develop fully.

APPENDIX A: COST MODEL FOR PROGRAM IMPLEMENTATION & COMPENSATION REFORM

To help systems leaders and policymakers estimate costs and feasibility of implementation, we developed a cost model that offers an example of the residency program implementation and compensation reform. Because cost drivers, such as costs of living and tuition at local colleges/universities, will be tied to the local market and vary significantly from one locality to another, we selected one place in which to develop a model: New Jersey. We chose this state both because data was accessible and market costs were relatively high, which helps to ensure our model does not underestimate costs. Developing a cost model also requires a set of design choices, policy decisions and assumptions about program design. Below we have highlighted the key design considerations, as well as the choices we made to aid other communities in developing their own locally appropriate models.

As states continue to grow investments and build early childhood systems, attention should also be paid to training site-based leadership, as well as policy and systems leaders. Implementation of a residency will require significant support from site leaders. While coaching for that group is built into our design, states serious about a broad investment in capacity-building should also build programs explicitly for leadership. This cost model does not include those costs, not because they are not critical, but for purposes of simplicity.

It is important to also note that our model is only as strong as the data that we were able to gather for our analysis. This is not intended to serve as a final cost estimate, but rather as an illustration of cost drivers and to illuminate the design considerations and policy recommendations embedded in this paper. Because of persistent underinvestment in the early care workforce, data capturing the state of the current workforce is limited. Local leaders in New Jersey likely have knowledge and access to other information that could strengthen the analysis. As this work advances, parallel efforts to fund and collect better data on the infant / toddler workforce would support stronger planning and implementation of these and related efforts.

Design considerations	Our assumptions for the purposes of this cost model
<i>Resident type:</i> Will the residency program target existing educators already working in an infant/toddler care setting, new educators, or a combination of both? Many infant / toddler educators have been working for years without access to high-quality professional support. We believe it is as important to deepen the expertise of existing educators in the field as it is to provide strong pre-service training to new educators.	We've modeled the costs of both new and existing educators.

<p><i>Compensation during residency for residents:</i> What is the right compensation level during the residency year? The stipend amount may shift based on the local policy context. If residents are employed full time at an infant / toddler care setting, the resident's current salary may be the compensation. Some programs may supplement that salary (i.e., to meet the MIT Living Wage level) to incentivize participation in the program and acknowledge the dual responsibilities of being a student and working full time. We explore the cost of achieving pay parity for infant / toddler educators with similarly credentialed preschool and kindergarten teachers in New Jersey in Appendix B.</p>	<p>For the purposes of our cost model, we assume that all existing educators and most new-to-the-field educator residents are working full time in an infant / toddler setting and, therefore, do not require a stipend during their residency year.</p> <p>We understand that in some communities, there may not be enough full-time roles in high-quality, appropriate infant / toddler settings to meet the needs of new-to-the-field educators. If a community does not have enough sites ready or able to accept residents, communities may need to consider paying new educators a stipend (priced at an assistant teacher salary) for one-year roles in existing high-quality sites to serve as a training ground. This would allow high-quality sites to train more than the number of available assistant teacher lines they have open, enabling more new educators to be trained in high-quality sites faster.</p> <p>Our model assumes a stipend of \$28,949 per resident. We assumed this cost will be necessary 30 percent of the time—averaging to \$8,685 per resident—for new-to-the-field educators.</p>
<p><i>Compensation during residency for mentor teachers:</i> How will expert practitioners at the infant / toddler site be compensated for their mentorship of a resident? Mentor teachers will be a support for new educators to the field (not incumbent educators.) Mentor teachers often receive a stipend (\$1,000–\$5,000) for their mentorship work based on local market costs. In some programs, in lieu or in addition to a stipend, mentor teachers will receive a certain number of free credits at the higher ed institution involved in overseeing the residency program. Mentor teachers will also need time at the beginning and periodically throughout the residency year for their own professional learning as mentors—usually about five days of professional learning in the year.</p>	<p>Our model assumes a mentor teacher stipend amount of \$1,350.</p> <p>Our model assumes \$815 for professional learning time for mentor teachers.</p>
<p><i>Educational outcome for residents:</i> In what degree or certification will the residency program culminate? While ideally done through a BA degree, a yearlong residency program could be adapted to strengthen professional learning experiences culminating in a certification (i.e., CDA) or other degree (i.e., AA or MA). This design choice will significantly impact the cost of the program based on the number of credits needed for completion.</p>	<p>Our model assumes that the residency will culminate in a bachelor's degree. The first 60 credits will be earned at a community college and the last 60 credits will be earned at a state university.¹¹⁷</p>
<p><i>Cohort size:</i> What is the cohort size for the residency? A faculty member or coach will provide individual on-site observations and coaching supports, as well as facilitate a consistent group meeting of residents. The size of each residency cohort should be large enough to allow for a diverse set of professional experiences and small enough to provide an intimate space for reflection and debriefing.</p>	<p>Our model assumes a residency cohort size of eight residents.</p>



<p><i>Coaching dosage:</i> With what frequency should a resident be visited at her infant / toddler site to receive coaching and meet with a cohort for group reflection and debrief? Through a sustained experience in an infant / toddler setting, supervision from core faculty, and close collaboration with peers, residents develop the ability to connect theory to practice and to reflect deeply on their own growth as educators. Ensuring that faculty / coaches have enough time to provide this advisement individually and in small groups is critical to the success of the residency program.</p>	<p>Our model assumes that the faculty advisor / coach conducts a site visit to the resident every three weeks and holds a weekly meeting with each cohort of residents.</p>
<p><i>Available scholarships:</i> What existing grants and scholarships can be leveraged to lower the cost of the coursework portion of the residency? The largest single line item in the residency cost model is coursework. However, there are several existing sources of financial aid that can be used to fund most or all of this cost for many residents. The federal Pell Grant provides awards of up to \$6,195 per year to undergraduates who have financial need.¹¹⁸ Individual institutions also administer the federal Supplemental Education Opportunity Grant program, which provides up to \$4,000 per year to those students with the greatest financial need. Many states have substantial need-based financial aid programs as well. In New Jersey, the state used in this case study, the Tuition Aid Grant (TAG) program provides up to \$12,798 per year at private institutions and up to \$9,848 at public four-year institutions to full time students with financial need.¹¹⁹ Students attending New Jersey's community colleges—both part time and full time—are potentially eligible for smaller TAG awards (in line with the colleges' lower tuition rates) or the Community College Opportunity Grant. All of these awards are need-based and the size of the award will depend on the cost of attendance and the financial need of the student. Given the low salaries earned by many current infant / toddler educators (see Appendix B), it is likely that many educators who are currently working would qualify for need-based financial aid. More concerning for potential residency program participants in New Jersey is the fact that the state's main financial aid program—the TAG grant—only provides grants to students in four-year universities if they are enrolled full time (defined as taking at least 12 credits). Given the work responsibilities of many current infant / toddler educators, it is unlikely that all residents could enroll full time to complete their coursework. However, existing educators working in programs that serve children receiving state subsidy funds are eligible for up to \$6,000 per year in additional scholarships through NJ Department of Human Services paid for through CCDBG funds.¹²⁰</p>	<ul style="list-style-type: none">• The actual financial aid amount a student is awarded will depend on various personal and financial factors. Our model assumes that the student is a married mother of two children with a family income of \$50,000 per year and no assets.• Our model assumes that 50 percent of residency participants enroll in college full time, in which case the coursework portion of the residency program would be completely paid for by a combination of the federal Pell Grant and the state TAG award. The cost of the coursework portion of the residency program would drop from \$36,090 to \$0.• We assume that 50 percent of residency participants enroll in college part time, in which case the coursework portion of the residency program would be partly paid for by the federal Pell Grant and NJ Department of Human Services scholarships for infant / toddler educators. In total, these programs would provide \$28,382 in grants, dropping the cost of the coursework from \$36,090 to \$7,708.• On average, the net cost of the coursework portion of the residency program—after existing federal and state grants are accounted for—would be \$3,854.

<p><i>Course development:</i> To what extent does existing infant / toddler-specific coursework at local colleges and universities need to be supplemented or enhanced? Many colleges and universities do not currently have dedicated infant / toddler programs. This work is either nonexistent or incorporated into a broader early childhood degree. To launch a successful infant / toddler residency program, we believe it will be critical to adapt current or build new infant / toddler resources to create a set of blended coursework that will be available for participating colleges and universities. Either colleges / universities with existing coursework or organizations/intermediaries working in the infant / toddler space could create these courses and make them available for participating colleges/universities.</p>	<p>Our model assumes that course development is a one-time planning and development cost, not an ongoing cost of the residency.</p>
<p><i>Technology:</i> We imagine that some of the infant / toddler coursework could be offered in a blended format. In order to ensure that there are not financial hardships for any program participants, we have included the cost of a tablet in the program costs.</p>	<p>Our model assumes \$250 per participant for tablet hardware.</p>
<p><i>One-time residency planning costs:</i> The infant / toddler residency program will require participating institutions of higher education to engage in planning in advance of launching a residency program, including designing/ implementing a resident recruitment strategy, identifying residency placement sites, supporting on-site staff as they prepare to serve as mentor teachers, identifying gaps in current infant / toddler coursework and engaging in program design. Additionally, to launch a successful infant / toddler residency program, many programs will need to adapt current or build new infant / toddler resources to create a set of blended coursework.</p>	<ul style="list-style-type: none"> • Our model assumes \$865,065 in blended course development costs for the creation of 18 courses (~54 credits) of infant/toddler coursework. These costs include a faculty leader, infant / toddler faculty content developers, online instructional design support + fringe benefits. • Our model assumes \$100,000 in other planning/technical assistance costs. • Our model assumes these planning costs are for one year and are a one-time expense.

Residency Program Cost Model: (New-to-the-field Educators)

Cost category	Cost	Description
On-site mentorship from an expert practitioner (i.e., mentor teacher)		
Mentor teacher stipend*	\$1,350	This stipend is a one-time expense for expert practitioners serving as mentor teachers for residents at their work site.
Release time for professional learning for mentor teacher*	\$815	This assumes a 2-day professional learning workshop for mentor teachers in the summer before the residency and 3 days of professional learning throughout the year for mentors to reflect and debrief their experiences as mentors.

Residency compensation		
Stipend*	\$8,685	<p>For the purposes of our cost model, we assume that all existing educators and most new-to-the-field educator residents are working full time in an infant / toddler setting and, therefore, do not require a stipend during their residency year.</p> <p>We understand that in some communities, there may not be enough full-time roles in high-quality appropriate infant / toddler settings to meet the needs of new-to-the-field educators. If a community does not have enough sites ready or able to accept residents, communities may need to consider paying new educators a stipend (priced at an assistant teacher salary) for one-year roles in existing high-quality sites to serve as a training ground. This would allow high-quality sites to train more than the number of available assistant teacher lines they have open, enabling more new educators to be trained in high-quality sites faster.</p> <p>Our model assumes a stipend of \$28,949 per resident. We assumed this cost will be necessary 30 percent of the time—averaging to \$8,685 per resident—for new-to-the-field educators.</p>
Coursework leading to a BA		
First 60 credits for AA at community college	\$9,990	Cost is modeled at \$167 per credit (including fees). Financial aid can reduce these costs significantly. See notes in section above.
Last 60 credits at a state university	\$26,100	Cost is modeled at \$435 per credit (including fees). Financial aid can reduce these costs significantly. See notes in section above.
Technology		
Tablet for blended coursework	\$250	This covers the cost of a tablet (i.e., an Amazon Fire or Samsung Galaxy) so that all students have access to blended courses.

Fieldwork supervision and advisory		
Faculty or adjunct (coach) advisor (with benefits)	\$5,875	<p>This cost covers a faculty member or coach working in coordination with the college / university. The faculty / coach:</p> <ul style="list-style-type: none"> • Conducts a site visit to the resident every 3 weeks. • Holds a weekly meeting with each cohort of 8 residents. <p>One faculty / coach can work with up to 2 cohorts of residents per year.</p>
Residency program administration and professional learning supports		
Program staff time	\$583	This cost covers program administration costs, likely done by a program director or staff member at the college / university.
Support for aligning coaching and coursework	\$583	This cost covers the faculty / staff time to ensure coaching is aligned to the coursework, particularly if the coach is not a member of the college / university team.
Coaching site leaders where residents are working	\$1,457	For educators already working at an infant / toddler site, some residents may not be at a high-quality site. We've estimated some coaching costs for working with site leaders where this is the case. We estimate that this layer of support will be needed in 30 percent of programs, on average so \$1,457 represents the cost on average across a cohort of participants where 30 percent receive this support.**
Professional learning for faculty / coaches	\$1,563	This cost covers faculty / coach professional learning modeled at half a day per month.
Total cost per resident for new-to-the field educators	\$57,251	
Tuition costs covered by federal and state grants	(\$32,236)	Federal Pell grant, New Jersey Tuition Assistance Grant (TAG), and New Jersey Department of Human Services scholarships for infant / toddler educators
Total net costs after accounting for scholarships	\$25,015	

* These costs would not apply in a model tailored to meet the needs of existing educators, reducing the cost for that group by \$10,850 to a total of \$46,401 per educator, or \$14,165 per educator after accounting for existing grants and scholarships.

** When this aid package is applied, the remaining cost of coursework alone is only \$3,854.

One-time Residency Planning Costs

Many colleges and universities do not currently have dedicated infant / toddler programs. This work is either nonexistent or incorporated into a broader early childhood degree. This means that tailored coursework may not exist and faculty/staff may not be fully prepared to support a residency program. The costs below show one-time, upfront costs of planning for and launching an infant / toddler residency program.

The infant / toddler residency program will require participating institutions of higher education to engage in planning in advance of launching an infant / toddler residency program, including designing/implementing a resident recruitment strategy, identifying residency placement sites, supporting on-site staff as they prepare to serve as mentor teachers, identifying gaps in current infant / toddler coursework, and engaging in program design. We've modeled the planning / technical assistance costs at \$100,000. These expenses cover costs including faculty participation in advisory committees and dedicated staff time to engage in design work in the year prior to launching the residency program. We've assumed these technical assistance costs are for one year and are a one-time expense. Ongoing costs of supporting coaches are incorporated into the ongoing residency costs.

To launch a successful infant / toddler residency program, many programs will need to adapt current or build new infant / toddler resources to create a set of blended coursework. Our model assumes \$865,065 in blended course development costs for the creation of 18 courses (~54 credits) of infant / toddler coursework. These costs include a faculty leader, infant / toddler faculty content developers, online instructional design support + fringe benefits. Additionally, in many states, new programs must be accredited. We estimate \$5,000, for a one-time program accreditation cost.

Phase-in Plan and Total Cost

In New Jersey, there are an estimated 18,073 child care workers working in child day care services, according to the Census Bureau's American Community Survey.¹²¹ For this cost exercise, we assume that this represents the number of lead teachers working in licensed infant / toddler center- or home-based providers that accept the state child care subsidy.¹²² Based on the estimates shown above, the cost of providing the residency program would be \$48,600 per educator. Of this cost, approximately \$32,300 would be covered by existing federal and state financial aid programs, while the remaining \$16,300 would need to be funded by other sources.¹²³

A residency program is likely to scale up over time, starting small and growing until it reaches full size. In the table below, we have developed a cost estimate for a very simple expansion plan with several assumptions:

- At full scale, the residency program would graduate 1,807 educators per year. This is approximately 10 percent of the 18,073 infant / toddler educators we target in Appendix B as needing to participate in the residency program in New Jersey. Assuming 10 percent annual attrition from the profession—which is likely lower than the current rate, but might be possible with the higher salaries targeted in our pay parity model—graduating 1,807 educators per year would be sufficient to replace those who leave.
- The typical participant takes six years to complete the entire program, including the coursework for the bachelor's degree and one-year residency. This is a rough assumption that recognizes that some participants—particularly those new to the field—will be able to participate full-time and graduate in four years. Other participants—particularly current educators working full-time—will participate in the program part-time and need up to eight years to complete their degree. Some participants will likely matriculate with some undergraduate credit enabling them to graduate sooner. However, to ensure full potential costs are accounted for, our model assumes that all participants will need the full load and timeline to complete the program.

- Five percent of participants drop out of the program each year. This implies that 2,336 participants must start the program to graduate 1,807 educators six years later.
- The program scales up to enroll 2,336 educators per year by year three.
- The average annual cost is \$4,169 per participant per year, after taking into account existing scholarships and grants. This is the average cost for new educators, divided by six (to reflect the six years it takes to complete the program). We use the “new educator” cost to be conservative, though we anticipate the program will cost less for existing educators, who may make up a substantial share of participants in many communities.

Cost category	Cost
Project director	\$120,000
Infant / toddler faculty or content developers	\$324,000
Online instructional design support	\$207,000
Fringe benefits (30.4 percent)	\$197,904
Total	\$848,904

Several insights emerge from the table above. The first is that the long-term run rate cost of the proposed program in New Jersey would be \$59 million per year. While a large cost, it is an order of magnitude below the cost of compensation reform—bringing infant toddler educators to the salary level of similarly credentialed preschool and kindergarten teachers—which we discuss in the next section. Second, as with any investment in human capital, the program will take time to have an impact. While the costs will begin to be incurred in the near term, the first residents may not graduate for four to eight years. Even then, the program will be producing only a share of the 18,000 residency graduates we eventually envision working in New Jersey. To the extent New Jersey, or any community, wants to have a larger impact sooner on its infant / toddler workforce, it must consider the degree to which the financial and programmatic resources exist to do so.

APPENDIX B: PAY PARITY FOR INFANT / TODDLER EDUCATORS IN NEW JERSEY

Even the most carefully designed residency program is unlikely to work unless it is paired with significant compensation reform for infant / toddler educators. Across the country, well-educated infant / toddler workers make far less than their counterparts teaching preschool, kindergarten, and elementary school students. In New Jersey, for example, an infant / toddler educator with a bachelor's or higher degree has an average annual income of \$20,184.¹²⁴ Preschool and kindergarten teachers with a bachelor's or higher degree have an average annual income of \$55,581, more than two-and-a-half times as large as similarly educated infant / toddler workers. Given that the majority of infant / toddler educators work 12 months a year, while kindergarten teachers are on a 10-month contract, achieving true pay parity would require an infant / toddler educator with a bachelor's to earn \$66,697 per year, more than triple their current average salary.

As communities consider how to pair compensation reform with efforts to improve the skills, knowledge, and practices of infant / toddler educators, there are a number of design considerations they must consider. In the box below, we lay out several of those considerations and highlight the approach we have taken when estimating the cost of compensation reform in New Jersey.

Design considerations	Our assumptions for the purposes of this cost model
<i>Definition of compensation:</i> What is included in compensation? Is it limited to salary or does it include health and retirement benefits, vacation time, professional development, and other aspects of a worker's total compensation?	In this illustrative model, we focus on salary, where we have the best data on the existing inequities across educators. We also include an estimate of benefits (health, retirement, payroll taxes, paid leave, etc.) equal to 31.5 percent of salary. ¹²⁵ Other researchers have studied more comprehensive compensation reform and we would encourage communities to consider doing so when possible. ¹²⁶
<i>Target salary for residency graduates:</i> What salary will be targeted for the most educated infant / toddler workers, those who complete a bachelor's degree through the residency model?	In our model, we target pay parity with preschool and kindergarten teachers who work in elementary schools.
<i>Adjustment of target salary:</i> Will the target salary be adjusted to account for the fact that infant / toddler workers often work longer days and longer years than elementary school teachers?	In our model, we adjust for the longer year by multiplying the average preschool and kindergarten teacher salary by 12/10, to account for the 10-month contract of New Jersey elementary school teachers. We do not adjust for any difference in the average hours per day.
<i>Target salary for other infant/toddler educators:</i> What will the target salary be for infant / toddler educators who are not graduates of the residency program?	As shown in Table B2, we set the target salary for infant / toddler educators with a BA who do not graduate from the residency program at 80 percent of the target salary of those who do. Consistent with the National Academies of Sciences, Engineering, and Medicine's 2018 report on Transforming the Financing of Early Care and Education, we set the target salary of those with an AA equal to 75 percent of the target salary for those with a BA. We set the target salary for all other infant / toddler educators equal to the living wage in New Jersey, which is substantially higher than the current average salary for infant / toddler educators in the state.

<i>Educators to target:</i> What group of educators will be targeted for compensation reform?	In our model, we target those educators who work with children from birth to 36 months old in a licensed center or home-based providers that accept the New Jersey child care subsidy. We focus on these educators because the state has existing policy levers (e.g., the subsidy and licensing requirements) that can be used to effectuate policy change.
<i>Target education level:</i> What is the target distribution of education levels in the infant / toddler workforce?	In our model, we assume that all future infant / toddler lead teachers in New Jersey will have bachelor's degrees and have completed the residency program. We assume the distribution of degrees for assistant teachers remains consistent with the present.

In this appendix, we estimate the salary cost of improving the education level and income of infant / toddler educators in New Jersey. As noted above, our goal is to focus on only those educators working with children from birth to 36 months who work in a licensed center or home-based child care providers that accept the New Jersey child care subsidy. Since this data is not readily available, we estimate it using respondent-level data from the U.S. Census Bureau's American Community Survey (ACS). We focus on two groups of workers in the ACS data: Childcare Workers in Child Day Care Services and Teacher Assistants in Child Day Care Services. As shown in Table B1, there are an estimated 25,632 such workers in New Jersey. On balance, we feel this is a reasonable estimate for our target population of infant/toddler educators in New Jersey.¹²⁷

Table B1—Current compensation of infant / toddler educators in New Jersey

	BA +	AA	Some College	No College	Total
Workers	5,2226	2,642	6,774	10,990	25,632
Share	20%	10%	26%	43%	100%
Avg. Income	\$20,184	\$17,563	\$18,298	\$17,033	\$18,065
Total Income	\$105,482,279	\$46,402,022	\$123,951,844	\$187,195,131	\$463,031,276
Benefits (14.8%)	\$15,616,651	\$6,869,819	\$18,351,071	\$27,714,239	\$68,551,780
Total Compensation	\$121,098,930	\$53,271,841	\$142,302,915	\$214,909,370	\$531,583,056

Source: 2017 American Community Survey (ACS) 5-Year Public Use Microdata Sample (PUMS) accessed via IPUMS. The number of workers includes both 18,073 Childcare Workers (occupation code 4600) in Child Day Care Services (industry code 8470) and 7,559 Teacher Assistants (occupation code 2540) in Child Day Care Services. Note: the estimate of 14.8 percent for benefits is based on the assumption that all infant / toddler workers receive 7.65 percent in employer contributions for FICA taxes and that 30 percent of infant / toddler educators receive health and retirement benefits, and for those educators who receive them, these benefits are valued at 23.85 percent of their salary.

As shown in Table B1, of the more than 25,000 infant / toddler educators in New Jersey, 20 percent have a bachelor's or higher as their highest degree, 10 percent have an associate's degree, and the remaining 70 percent have either some or no college education.¹²⁸ Educators with a bachelor's degree make an average annual income of \$20,184, only slightly above the average annual income of \$17,033 for educators who have never gone to college. In New Jersey—as in much of the rest of the country—there is almost no return to a college degree for those who plan to work in infant / toddler education.

Table B2—Salary targets for infant / toddler educators in New Jersey

Level of Education	Salary Target	Rationale
BA degree (graduate of residency program)	\$66,697	Annualized salary for pre-K / K teachers in elementary schools
BA degree (not a graduate of residency program)	\$53,358	80% of target above
AA degree	\$45,020	75% of BA target (averaging the two targets above)
Below AA	\$28,949	Living wage for a single person in New Jersey (https://livingwage.mit.edu/states/34)

Source: Salary target for educators with a BA degree who are part of the residency program is based on the annualized salary for preschool and kindergarten teachers in elementary schools from the 2017 American Community Survey. Note: the BA targets and AA targets are in 2017 dollars. They might need to be adjusted upward based on inflation between 2017 and any date established for the target.

To provide an incentive for infant / toddler educators to obtain more education and training, those who do must earn a higher salary. In Table B2, we propose salary targets for infant / toddler educators in New Jersey based on their level of education and training. The top-level target for infant / toddler educators who have a bachelor's degree and have completed the residency program proposed in this report would be \$66,697. This salary would provide pay parity with the annualized salary of preschool and kindergarten teachers in New Jersey who work in elementary schools. The minimum goal for those educators who have less than an associate's degree would be a living wage, which is currently estimated to be \$28,949 in New Jersey.¹²⁹ The intermediate targets provide reasonable rungs on a ladder, as we hope to encourage educators to improve their education and skills and receive reasonable compensation boosts in return.¹³⁰

In Table B3, we estimate the cost of improving the education and pay of infant / toddler educators in New Jersey. While we assume the same 25,632 infant / toddler educators as in Table B1, we make three changes. First, we assume they are paid the salary targets shown in Table B2. Second, we assume their education level increases, which is one of the primary goals of improving compensation. Rather than the 20 percent of current educators who have at least a bachelor's as their highest degree, we assume all lead teachers will have participated in the residency program and earned a bachelor's degree. These teachers, who represent 71 percent of all infant / toddler educators, will earn a salary of \$66,697. The remaining educators are assistant teachers, and we assume for the purposes of this model that the distribution of their degrees remains consistent with the present (although credential reform for them to advance would also be advisable long term), although the income earned by assistant teachers will improve. Third, we assume that educators receive benefits equal to 31.5 percent of their salary, as we propose that all infant / toddler educators have access to health, retirement, and other benefits.

Table B3—Target salary cost of infant / toddler educators in New Jersey

	BA (residency)	BA (not residency)	AA	Below AA	Total
Workers	18,073	1,577	906	5,075	25,632
Share	71%	6%	4%	20%	100%
Avg. Income	\$66,697	\$53,357	\$45,020	\$28,949	\$57,634
Total Income	\$1,205,408,870	\$84,144,516	\$40,788,347	\$146,945,124	\$1,477,286,857
Benefits (31.5%)	\$379,703,794	\$26,505,522	\$12,848,329	\$46,287,714	\$465,345,360
Total Compensation	\$1,585,112,664	\$110,650,038	\$53,636,676	\$193,232,838	\$1,942,632,216
Total Incremental Cost:					\$1,411,072,312

Source: Analysis of 2017 American Community Survey (ACS) Public Use Microdata Sample (PUMS) accessed via IPUMS. Note total incremental cost assumes that infant / toddler educators do not currently have benefits. It is likely that some infant / toddler educators do currently have benefits, but these benefits are limited, so the estimated incremental cost in this table is only a small overestimate.

Under these assumptions, the total compensation of infant / toddler educators in New Jersey would increase from the current \$532 million to over \$1.9 billion. To put this increase of \$1.4 billion in context, it represents 4.8 percent of total spending on public elementary and secondary education and 0.23 percent of New Jersey's Gross Domestic Product.¹³¹ While a large and meaningful increase in income to New Jersey's infant / toddler educators, such compensation reform is not outside the state's ability to pay should the political will exist to do so.

APPENDIX C: FEDERAL FUNDING OPTIONS

Child Care Development Block Grant (CCDBG)

CCDBG is currently the largest source of federal funding for child care. States are required to set a percentage of their CCDBG funding aside for quality initiatives (currently 9 percent, plus an additional 3 percent for activities to improve the care of infants and toddlers).¹³² States must use quality set-aside dollars to fund at least one of a list of 10 activities outlined by the federal regulation (one of which is the training and professional development of the child care workforce.) States could allocate a portion of their existing quality set-aside money to develop and fund residency models for model for infant / toddler educators, complying with federal regulations. To make a broad and lasting impact on the infant / toddler workforce and the quality of child care programs throughout the country, increased funding for CCDBG is required. Congress has demonstrated a commitment to expanding funding for child care through CCDBG in recent years. CCDBG is funded at \$7.7 billion for FY20, a \$2.4 billion increase from FY19. Early childhood advocates continue to work to ensure lawmakers protect and strengthen these increases in future appropriations measures to allow states to continue implementing important quality and safety improvements passed by Congress as part of the CCDBG Act of 2014.¹³³

Early Head Start Child Care Partnerships (EHS-CCPs)

The federal government could consider developing a residency model that includes a provision for increased compensation for infant / toddler educators through its EHS-CCPs. Over time, EHS-CCP funding could increase to enable Head Start to partner with more child care programs throughout the country, increasing the number of infant / toddler residency programs and providing a sustainable funding source for increased compensation for the educators working in those programs.

Another possible idea to increase funding for EHS-CCP is to reallocate Head Start funding into EHS-CCP in states that have universal pre-kindergarten. States with universal pre-kindergarten would be asked to allocate additional resources to serve those children who would otherwise be served by Head Start; however, given that many states have prioritized the education of four-year-olds by identifying funding to establish universal pre-kindergarten and have not similarly prioritized the education of children birth to three, the reallocation of federal resources to serve more infants and toddlers would fill a critical gap currently unaddressed by states.

U.S. Department of Labor Registered Apprenticeship Programs / Workforce Innovation and Opportunity Act (WIOA)

The U.S. Department of Labor's Office of Apprenticeships supports the development and implementation of on-the-job learning models across many different industries. The Office of Apprenticeship serves to register programs that meet specified federal and state standards, protects the safety and welfare of apprentices, issues nationally recognized and portable certificates of completion to apprentices, promotes the development of new programs through marketing and technical assistance, and offers assurances for high-quality training and the production of highly skilled workers.¹³⁴ "Registered Apprenticeship programs offer students on-the-job learning and coursework aligned with the knowledge and competencies required to be fully proficient employees. Through Registered Apprenticeships, participants are employees receiving paid, specialized on-the-job training with ongoing mentorship, as well as classroom-based, related technical instruction that can result in college credit. All Registered Apprenticeship Programs culminate in a nationally recognized credential while in degree apprenticeship models, participants also receive an associate's degree, or in some cases, a bachelor's degree following completion. Apprentices are given time off to attend classes with contextualized coursework that applies directly to the job.

Wage increases are provided as participants meet benchmarks for skill attainment and, upon completion, they receive a certificate of completion from the U.S. Department of Labor's Office of Apprenticeship."¹³⁵

Currently eight states offer an Early Childhood Educator (ECE) Registered Apprenticeship program, some of which are degree-earning. Each program varies in how it is administered, what is offered, and expectations of participants. For example, some programs include several semesters of college-level coursework with associated credit while others award a CDA or associate's degree following completion. In response to the growing agreement that early educators require advanced training, state and local representatives have begun looking to Registered Apprenticeships as an effective way to break down barriers believed to be preventing ECEs from accessing higher education and setting them on a pathway to earning a bachelor's degree. A related approach to addressing the educational needs of future ECE professionals is through pre-apprenticeships. These programs, also associated with course credit, can be an effective tool for recruiting the next generation of ECE. In addition, they are designed to prepare students to enter into and succeed in a registered apprenticeship program. Students gain specialized instruction and on-the-job ECE training while pursuing a high school diploma or GED. Pre-apprenticeships are a part of a formal partnership with a registered apprenticeship program; they allow apprentices to receive credit toward the completion of the registered apprenticeship following graduation.¹³⁶

Efforts are underway to develop additional Registered Apprenticeship programs for early childhood educators through the U.S. Department of Labor. States could receive funding and technical assistance through the U.S. Department of Labor to expand and build on existing efforts to offer "earn while you learn" opportunities for infant / toddler educators. Registered Apprenticeship programs could be financed through the Workforce Innovation and Opportunity Act (WIOA), which was signed into law in 2014. WIOA is designed to help job seekers access employment, education, training, and support services to succeed in the labor market and to match employers with the skilled workers they need. Congress passed the act by a wide bipartisan majority. It is the first legislative reform of the public workforce system in 15 years, and strategically coordinates core programs of federal investment in skill development overseen by the U.S. Departments of Education and Health and Human Services.¹³⁷ For program year 2016, the federal government appropriated more than \$6.9 billion to states for the Core WIOA Program and approximately \$3.4 billion in federal formula funding for partner programs, for total funding of \$10.5 billion.

Higher Education Act (HEA)

The HEA is the most important piece of legislation overseeing the relationship between the federal government, colleges and universities, and students. It authorizes various federal aid programs within the Department of Education that support students pursuing a postsecondary education, including grant programs that support efforts to expand and increase access for low-income and first-generation students, such as Pell Grants. The current HEA was set to expire at the end of 2013, but was extended while Congress works on the next reauthorization. Among the issues that likely will be included in the final bill are affordability and college costs; access, persistence and completion; better information for consumers; and student loan programs.¹³⁸

Reauthorization of the HEA offers an opportunity to encourage reform in higher education that might lead to the creation of more residency and competency-based degree models. Innovative "earn while you learn"-type models have the potential to address challenges associated with affordability, cost, and persistence for postsecondary degree candidates. Therefore, the development of such programs could be encouraged through the reauthorization of the HEA. Furthermore, if additional scholarship funds become available through the HEA to support "alternate pathways" to postsecondary degrees, they could be leveraged by residency and apprenticeship programs to support degree attainment for infant / toddler educators.

APPENDIX D: STATE-LEVEL REVENUE STREAMS

Corporate or Business Tax Revenue

In 2019, the **Oregon** legislature passed a corporate activity tax bill entitled, Fund for Student Success. Twenty percent of the revenue generated will be allocated to programs serving infants, toddlers, and preschoolers. For 2020–21, it is estimated this will yield \$170 million for early care and education needs such as early intervention, an Early Learning Equity Fund for traditionally underserved populations, the state pre-kindergarten program, Early Head Start, parenting engagement, and workforce development. (Interestingly, this tax which applies to corporations, partnerships, and other entities actually reduces personal income taxes on the three lowest brackets.)¹³⁹

Sales Tax Revenue

South Carolina is the only state that provides funding for early care and education from sales tax revenue. In 1984, the state began using a 1 percent sales tax to fund public education, including early care and education. The goal of the funding is to improve the school readiness of at-risk four-year-olds by providing free early care and education. About 25 percent of South Carolina's public-school districts provide classes for children from lower-income families. The total revenue for the program is \$15 million annually.¹⁴⁰

Special District Governments

Special district governments (SDGs), also known as special taxing districts and special purpose districts, collect and administer funding for a wide range of services, including early education and child care. These independent, governmental structures are given authority to levy taxes within a specific geographic area for a specific purpose. SDGs can follow the boundaries of an existing municipality or can span multiple localities, as is often the case with Regional Transit Authorities, a common type of SDG. The governing bodies themselves, however, are independent of existing municipal governments, which allows them to levy taxes outside of state-imposed caps on municipal tax rates. While taxing authority for these structures comes from state legislation, SDGs are created when voters or policymakers at the local or regional level choose to opt into their creation, often through a public vote.¹⁴¹

Florida started its first Children's Service Council (CSC) in 1946 and its second 40 years later. Florida's CSCs have voter-approved taxing authority to ensure a dedicated funding source is available for children's programs and services. Voters in a county with an independent Children's Services Council pay a portion of their property taxes toward their CSC and the programs they fund. For an approximate average annual cost to the taxpayer of \$25 to \$80 (depending on the county,) CSCs are able to fund programs that meet the specific needs of the families and children living in their communities.¹⁴²

Colorado also recently passed legislation authorizing the creation of regional or local special taxing districts for early care and education (Early Childhood Development Special Districts) that may levy property or sales tax, or both.¹⁴³

APPENDIX E: LOCAL REVENUE STREAMS

Local Tax Levies

Local tax levies have been successful in filling gaps in funding to make universal pre-K a reality in many cities throughout the country. State and local governments might consider implementing tax levies to fund quality improvement efforts in child care through residencies or apprenticeship programs linked with increased compensation for infant / toddler educators. The New York City Comptroller has proposed an initiative called **NYC Under 3** that calls for increasing access to high-quality child care programs for infants and toddlers throughout New York City. The initiative, which addresses both access in terms of cost and availability of programs serving infants and toddlers, also commits to addressing the quality of programs by improving the training, professional development, and compensation of educators working with infants and toddlers. The Comptroller “proposes paying for the program with revenue from a modest child care payroll tax on private employers in New York City, which would exempt all businesses with payroll under \$2.5 million annually, about 95 percent of firms. The proposed payroll tax would be applied quarterly on a graduating scale.”¹⁴⁴

San Francisco voters approved the “**Early Care and Education Commercial Rents Tax**” in June 2018 to expand access to subsidized child care for San Francisco families. The ordinance imposes a new gross receipts tax of 1 percent on revenues a business receives from leasing warehouse space in San Francisco and 3.5 percent on revenues a business receives from leasing certain qualifying commercial spaces in San Francisco.¹⁴⁵ This measure is in addition to the longstanding **San Francisco California Children and Youth Fund**, which is funded by a 4 percent set-aside of property tax revenue first approved by voters in 1991. Renewed in 2000 and 2014, the Children and Youth Fund is used for a variety of programs for children and youth, including child care for families with children under age 5. The fund raises about \$12 million per year.¹⁴⁶

Local Initiatives Funded Through General Operating Funds

Washington, D.C. has started to implement a comprehensive health and education program to benefit infants and toddlers called “**Birth to Three for All D.C.**” The program combines early childhood and family health initiatives with increased access to high-quality child care. The initiative aims to increase child care subsidy rates to cover the true cost of high-quality early education, develop a fair and competitive salary scale for early childhood educators (on par with D.C. public school teachers), support early childhood educators to attain higher credentials, and increase resources through the Quality Improvement Network to ensure the education of children in low-income families meets the highest quality standards. The Washington, D.C. City Council has so far committed \$1.3 million (of the \$500 million required for full implementation 10 years from now).¹⁴⁷

APPENDIX F: COMPLETE LIST OF STAKEHOLDERS ENGAGED

Jessica Baghian, Assistant Superintendent, Louisiana Department of Education
W. Steven Barnett, Senior Co-Director, National Institute for Early Education Research (NIEER), Rutgers University
Alison Baulos (designee for James Heckman), Executive Director, University of Chicago
Ashley Beckner, Venture Partner, Investments, Omidyar Network
Laura Bornfreund, Director, Early and Elementary Education, New America
Seth Borgos, Director, Research and Program Development, Center for Community Change
Marjorie Brickley, Program Director, Infant & Family Development, Coordinator, Infancy Institute,
Bank Street Graduate School of Education
Kim Cephas, CDA Training and Curriculum Specialist, Council for Professional Recognition
Ajay Chaudry, Research Scholar, New York University, Robert F. Wagner School of Public Service
Rachel Chazan Cohen, Associate Professor, University of Massachusetts
Sherry Cleary, University Dean, Early Childhood Initiatives, City University of New York
Gerry Cobb, Executive Director, Pritzker Children's Initiative
Abby Copeman Petig, Research and Policy Specialist, Center for the Study of Child Care Employment, UC Berkeley
Nina Dastur, Independent Consultant, Policy, Legislative & Campaign Strategist
Allyson Dean, Director, Resource Management, Development and Dissemination, ZERO to THREE
Harriet Dichter, Consulting Director, ICF Early Education Services
Dionne Dobbins, Senior Director of Research, Child Care Aware of America
Libby Doggett, Early Learning Expert/Consultant, former Assistant Secretary of Policy and Early Learning,
U.S. Department of Education
Claire Dunham, Senior Vice President, Ounce of Prevention Fund
Katie Emerson Hoss, Higher Education Manager, Early Learning (Early Ed U), University of Washington
Rhian Evans Allvin, Chief Executive Officer, NAEYC
Phil Fisher, Professor and Program Director, Brain Science, University of Oregon
Dr. Lynette M. Fraga, Executive Director, Brandi King & Dionne Dobbins, Child Care Aware of America
Allison Friedman-Krauss, Assistant Research Professor, NIEER
Yasmin Sabrina Fodil, Director, Community Team, 100Kin10
Ellen Gallinsky, Chief Science Officer, Bezos Family Foundation
Chrisanne Gayl, Senior Director, Policy and Programs, Trust for Learning
Jennifer Gilken, Assistant Professor, Teacher Education Department, BMCC
Jeanette Gong, Director, Intervention Quality Initiatives, NYC Department of Health and Mental Hygiene
Amanda Guarino, Policy Director, First Five Years Fund
Tamara Halle, Senior Scholar, Early Childhood Research; Co-director, Child Trends
Katie Hamm, Vice President, Early Childhood Policy, Center for American Progress
Elliot Haspel, Program Officer, Education Policy & Research, Robins Foundation
Susan Hibbard, Executive Director, BUILD
Lauren Hogan, Senior Director, Public Policy and Advocacy, NAEYC
Jacqueline Jones, CEO, Foundation for Child Development
Myra Jones-Taylor, Chief Policy Officer, ZERO TO THREE
Gail Joseph, Founding Director, EarlyEdU, University of Washington
Sharon Lynn Kagan, Professor, Teachers College, Columbia University, Early Childhood and Family Policy Center

Katherine Kempe, Senior Director, NAEYC, Power to the Profession
Brandi King, Deputy Chief of Programs, Child Care Aware of America
Ann Kirwan, Vice President, Ounce of Prevention Fund
Jon Korfmacher, Associate Professor, Erikson Institute
Dianne Lake, State Systems and Federal/State TTA expert, ZERO TO THREE
Lidiya Lednyak, Assistant Commissioner, NYC Department of Health and Mental Hygiene
Sarah LeMoine, Senior Director, Professional Development and Workforce Innovations Department, ZERO TO THREE
Michael Levine, Senior Vice President & Chief Knowledge Officer, Sesame Workshop
Joan Lombardi, Director, Early Opportunities; Senior Advisor, Bernard van Leer Foundation,
Buffett Early Childhood Fund, Pritzker Family Foundation
Jennifer Longley, Assistant Professor, Teacher Education Department, BMCC
Sarah Lytle, Director, Outreach Education, Institute for Learning & Brain Sciences (I-LABS), University of Washington
Tammy Mann, Executive Director and Former Board Chair, National Association for the Education of Young Children
Peter Mangioni, Co-Director, WestEd, Center for Child and Family Studies
Tre Maxie, Director of External Engagement, CDA Council for Professional Recognition
Carey McCann, Assistant Director, State Services, BUILD
Matthew Melmed, Executive Director, ZERO TO THREE
Samuel J. Meisels, Founding Executive Director, Buffett Early Childhood Institute at the University of Nebraska
Talia Milgrom Alcott, Executive Director, 100Kin10
Cristina Novoa, Senior Policy Analyst, Center for American Progress
Enyinnaya Okebugwa, Venture Partner, Investments, Omidyar Network
Sophia Pappas, Managing Director, Birth Through Eight Strategy Tulsa, George Kaiser Family Foundation
Nasha Patel, Chief of Early Learning Strategy, Louisiana Department of Education
Kim Perrelli, Grace Reid, Mary Beth Salomene Testa, Donna Minster, New Jersey CCR, CCA, ECE Consultants
Toni Porter, Principal Consultant, Early Care and Education Consulting
Natalie Renew, Director, Home Grown
Barbara Reisman, Senior Adviser, Maher Charitable Foundation
Ellen Roche, Executive Director, Trust for Learning
Tonja Rucker, Program Director, National League of Cities
Shannon Rudisill, Executive Director, Early Childhood Funders Collaborative
Sharon Ryan, Professor, National Institute for Early Education Research (NIEER)
Sue Russell, Executive Director, T.E.A.C.H. Early Childhood National Center
Jessica Sager, CEO, All Our Kin
Sarah Saxton-Frump, Co-Founder + Chief Operating Officer, Peloton U
Jack P. Shonkoff, Director, Center on the Developing Child at Harvard University
Linda Smith, Director, Bi-partisan Policy Center; Former Deputy Assistant Secretary for EC Development, Administration
for Children and Families, U.S. Department of Health and Human Services
Helen Stebbins, Policy Director, Alliance for Early Success
Katherine Stevens, Resident Scholar and Early Childhood Program Lead, American Enterprise Institute
Kathy Stohr, Project Manager, Pritzker Children's Initiative
Juliet Taylor, University of Washington, Cultivate Learning
Sara Vecchiotti, Vice President, Research and Program Innovation, Foundation for Child Development
Janna Wagner, Chief Learning Officer and Co-founder, All Our Kin

Valora Washington, CEO, CDA Council for Professional Recognition

Joe Waters, Co-founder and CEO, Capita

Cindy Watkins, President, Smart Start NC

Sara Watson, Senior Director, Policy, Bainum Family Foundation

Catherine White, Director of Child Care and Early Learning, National Women's Law Center

Donna White, Vice President, Smart Start NC

John White, Superintendent, Louisiana Department of Education

Marcy Whitebook, Co-Director, Center for the Study of Child Care & Employment, University of California, Berkeley

Simon Workman, Director, Early Education Policy, Center for American Progress

Meryl Yoches Barofsky, Senior Social Science Research Analyst, Office of Planning, Research, & Evaluation,
Administration for Children and Families

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- 108 As noted above, many students are currently required to take remedial coursework at the outset of an AA or BA degree, which could affect the cost of infant-toddler residency programs as well as the likelihood that participants will ultimately be successful. Through the creation of these infant-toddler residencies, we will strongly support the important efforts underway in community colleges across the country to eliminate the need for remedial coursework.
- 109 For this exercise, we assume that, at scale, a program would need to graduate 10% of the workforce annually to replace natural attrition due to retirement and other reasons for leaving the profession. While this may be higher than current attrition rates among infant / toddler educators, we believe that attrition will decline with compensation reform, discussed in Appendix B.
- 110 This initial cost of \$444 million represents a \$10,884 average salary improvement for 25,632 infant / toddler educators, for a total salary increase of \$279 million, plus a \$165 million incremental cost for improved benefits (health, retirement, payroll taxes, paid leave, etc.).
- 111 We include an estimate of benefits (health, retirement, payroll taxes, paid leave, etc.) equal to 31.5% of salary. This follows the assumption used in the National Academies of Sciences, Engineering, and Medicine's 2018 report on *Transforming the Financing of Early Care and Education* (see p. 269).
- 112 Total public elementary and secondary education spending comes from the 2017 US Census Bureau's Census of Governments: Finance - Survey of School System Finances <https://www.nj.gov/education/stateaid/1920/>). New Jersey's GDP comes from the U.S. Bureau of Economic Analysis, as reported by the Federal Reserve Bank of St. Louis (<https://fred.stlouisfed.org/series/NJNGSP>). For a comparison point, the National Academies of Sciences, Engineering, and Medicine's 2018 report on *Transforming the Financing of Early Care and Education* estimates that "the total cost of providing high-quality early care and education would amount to at least \$140 billion, equivalent to about three-quarters of 1 percent (0.75 percent) of U.S. gross domestic product (GDP), or slightly less than the current average of 0.8 percent of GDP allocated to early care and education for the nations of the OECD" (p. 6). That report includes aspects of a high-quality education not considered here (e.g. facilities improvements) and defines early care and education as "nonparental care for children from birth to kindergarten entry that occurs outside a child's home" (p. 23), which is a more expansive definition than the infant/toddler education we focus on in this report.
- 113 Note on methodology: there are 11.6 million children age 0-2 in the U.S., of whom 308,000 (or 2.6%) live in New Jersey. We then multiplied the New Jersey costs by 37.7 to scale up to the national level ($100 / 2.6 = 37.7$).
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- 117 As noted in the paper, we recognize that there is not always a seamless transfer of credits from two-year to four-year institutions of higher education. As part of our policy efforts to create these residency programs, we would work to push for a more seamless system to ensure that participants do not need to take extra courses because of the transition. (For example, we could imagine cities/states requiring this seamless articulation because two- and four-year institutions as a requirement for higher education institutions participating in the program.)
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- 121 This estimate uses the 2017 5-Year Public Use Microdata Sample (PUMS) from the ACS and includes all workers categorized in occupation code 4600 (childcare workers) and industry 8470 (child day care services).
- 122 On the one hand, this may be a low estimate of the number of infant / toddler lead teachers in New Jersey because some infant / toddler lead teachers are likely recorded as working in different Census “industries” (e.g., there are an estimated 7,575 childcare workers working in schools). On the other hand, this may be a high estimate of our target population because some of these 18,073 educators are likely working in unlicensed centers or centers that do not accept the New Jersey child care subsidy. Using data from the NJ Department of Human Services (<http://www.childcarenj.gov/ProviderSearch>), we estimate that 75 percent of licensed center- and home-based providers in New Jersey participate in the subsidy program (4,906 out of 6,569 licensed providers, as of 11/3/19).
- 123 This estimate assumes that all of the coursework costs will be covered by the federal Pell grant and state TAG grant for full-time students, and a portion of the coursework costs will be covered by the Pell grant and NJ Department of Human Services scholarships for part-time students. We assume 50 percent of students will be full-time students, at least for the portion of their coursework that is in a four-year college.
- 124 This income estimate come from the 2017 American Community Survey (ACS) Public Use Microdata Sample (PUMS), accessed via IPUMS. This combines the average salary for Childcare Workers in Child Day Care Services (\$21,652) and Teacher Assistants in Child Day Care Services (\$16,789).
- 125 This follows the assumption used in the National Academies of Sciences, Engineering, and Medicine's 2018 report on Transforming the Financing of Early Care and Education (see p. 269).
- 126 See, for example, <https://cscce.berkeley.edu/files/2019/07/CSCCE-Financing-EarlyEducator-Quality.pdf>.
- 127 This estimate includes 18,073 Childcare Workers (occupation code 4600) in Child Day Care Services (industry code 8470) and 7,559 Teacher Assistants (occupation code 2540) in Child Day Care Services. On the one hand, this may be a low estimate of the number of infant / toddler educators in New Jersey because some infant / toddler educators are likely recorded as working in different Census “industries” (e.g., there are an estimated 7,575 childcare workers working in schools). On the other hand, this may be a high estimate of our target population because some of these 25,632 educators are likely working in unlicensed centers or centers that do not accept the New Jersey child care subsidy. Using data from the NJ Department of Human Services (<http://www.childcarenj.gov/ProviderSearch>), we estimate that 75 percent of licensed center- and home-based providers in New Jersey participate in the subsidy program (4,906 out of 6,569 licensed providers, as of 11/3/19).
- 128 Table B1 highlights an important point—slightly more than half of current infant/toddler educators in New Jersey have some college experience, with 20% having a BA. When designing a residency program, communities will need to consider whether and how the program will be adjusted to account for the current education levels of incumbent educators. To the extent that existing educators can be given credit for their existing college coursework and degrees, the net cost of the program may decline.
- 129 Estimated using MIT's Living Wage Calculator, assuming a single person with no children (<https://livingwage.mit.edu/states/34>). Note that this estimate is approximately \$2,000 lower than New Jersey's 2024 target minimum wage of \$15 per hour (which equates to \$31,200 annually).
- 130 The 75 percent ratio between the salary target for those with an AA and those with a BA (who are not a graduate of the residency program) is based on the same assumption used in the National Academies of Sciences, Engineering, and Medicine's 2018 report on Transforming the Financing of Early Care and Education (see p. 271).

- 131 Total public elementary and secondary education spending comes from the 2017 US Census Bureau's Census of Governments: Finance - Survey of School System Finances <https://www.nj.gov/education/stateaid/1920/>. New Jersey's GDP comes from the U.S. Bureau of Economic Analysis, as reported by the Federal Reserve Bank of St. Louis (<https://fred.stlouisfed.org/series/NJNGSP>). For a comparison point, the National Academies of Sciences, Engineering, and Medicine's 2018 report on Transforming the Financing of Early Care and Education estimates that "the total cost of providing high-quality early care and education would amount to at least \$140 billion, equivalent to about three-quarters of 1 percent (0.75 percent) of U.S. gross domestic product (GDP), or slightly less than the current average of 0.8 percent of GDP allocated to early care and education for the nations of the OECD" (p. 6). That report includes aspects of a high-quality education not considered here (e.g. facilities improvements) and defines early care and education as "nonparental care for children from birth to kindergarten entry that occurs outside a child's home" (p. 23), which is a more expansive definition than the infant/toddler education we focus on in this report.
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